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ABSTRACT

The Professional Agricultural Workers Conference (PAWC) provides a forum for participants to articulate strategies to improve the quality of life for rural people. The PAWC is designed to provide a forum for people involved with university programs to exchange ideas and information; encourage development of action-oriented activities directed at enhancing efficiency in agriculture; and provide an operational linkage with the land-grant system, government agencies, and the private sector. The conference theme, "role of the United States Department of Agriculture (USDA), land-grant universities, and other agencies in assisting rural America," was discussed from three perspectives (research, education, and technology transfer); in addition, examples were presented showing how the three entities are combined to assist rural America. The proceedings includes papers on the roles of technology transfer, economic development, Food Safety and Inspection Service, extension/technology transfer, Department of Housing and Urban Development, and the Emergency Land Fund in assisting rural America. Following the papers, critiques made during the general conference sessions and workshops are presented, and feedback from participants is provided on assisting rural America. Finally, examples are given of how the land-grant system combines instruction, research, and technology transfer to assist rural Americans. (JN)

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The Role of USDA, Land-Grant Universities and Other Agencies in Assisting Rural America — Research, Education and Technology Transfer

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—Experiences of the 1890 Land-Grant Universities and Tuskegee Institute.

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THE ROLE OF USDA, LAND-GRANT UNIVERSITIES AND OTHER AGENCIES IN ASSISTING RURAL AMERICA — RESEARCH, EDUCATION AND TECHNOLOGY TRANSFER

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DEDICATION

The publication is dedicated to the following groups associated with 1890 Land-Grant Universities and Tuskegee Institute: (1) Association of Research Directors; (2) Extension Administrators Association; (3) Council of Administrative Heads of Agriculture; (4) Council of Home Economics Administration; and (5) Association of Directors of International Programs. Inputs from these groups were very evident during the planning and the implementation of activities incorporated in these proceedings. We commend each group for its commitment to the improvement of quality of life for rural people and look forward to greater and wider participation in the future.

ACKNOWLEDGMENTS

Special mention is made of the timely and helpful support from all levels of the Tuskegee Institute family and Tuskegee City and County governments. The "Town, Gown and Country" approach of working together for planning and implementation was highly evident during the days participants were in Tuskegee. Individuals, groups and organizations involved in the planning and implementation activities are commended for their unselfish efforts. To the participants, it was indeed a pleasure serving as your host and your support and encouragement helped to keep planning activities on course and program implementation on schedule. Special thanks is conveyed to the Alabama Perdido Vineyards, Inc., who sponsored the reception on Sunday, December 4, 1983 for the Professional Agricultural Workers Conference.

Any opinion, findings and recommendations expressed in these proceedings are those of the authors and do not necessarily reflect the views of Tuskegee Institute or the editor.

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THE PROFESSIONAL AGRICULTURE WORKERS CONFERENCE (PAWC)

During the three-day conference, December 4-6, 1983, the theme, "The Role of USDA, Land-Grant Universities and Other Agencies in Assisting Rural America," was discussed from three perspectives: (1) Research; (2) Education; and (3) Technology Transfer. In addition, examples were presented showing how the three entities are combined to assist rural America. PAWC participants included individuals from the 1890 Land-Grant Universities and Tuskegee Institute who are involved in instruction, research and outreach activities. In addition, individuals associated with foundations, government agencies, and private industry attended the yearly conference in record numbers.

The PAWC provides a forum for participants to articulate strategies intended to improve the quality of life for rural people. The PAWC is designed to accomplish three specific goals: (1) provide a forum for people involved with university programs to exchange ideas and information; (2) encourage development of action-oriented activities directed at enhancing efficiency in agriculture; and (3) provide an operational linkage with the Land-Grant system, government agencies, and the private sector. In summary, the PAWC is a forum where individuals can articulate strategies designed to improve the quality of life of people served by the 1890 Land-Grant Universities and Tuskegee Institute.

The PAWC was established at Tuskegee Institute in 1942 and the annual meeting of professional agriculturists has been held at the Institute since that date. The Director of HRDC serves as chairman for the conference with input by representation from the 1890 Land-Grant Universities and Tuskegee Institute. The papers presented at the 1983 PAWC offer valuable insights into the role these universities have played and continue to play in assisting rural America. In addition, the papers mirror the expertise located on the member campuses for working with agencies having responsibilities for assisting rural America. Strategies for fuller utilization of the campus-based expertise were discussed during the planned sessions and private meetings.

The Conference Proceedings are presented in four sections: Part I—"Setting the Stage" for Assisting Rural America; Part II—Analysis of the Group Role; Part III—Feedback from Participants; Part IV—"Show and Tell!"—Implementation of Strategies. The editor makes an introductory statement to each part of the Proceedings. Challenges advanced in all papers and dialogue groups served to strengthen the sense and pur-

pose as well as renew the commitment of the Land-Grant System (1890 and 1862) to the economic viability of rural America. Just as importantly, the content of the papers reflects an understanding that staffing of Technology Transfer Teams must include individuals who recognize that solutions to rural problems will change as circumstances within the community change (political, social, and economic). Further study of the papers will reveal that the Land-Grant System has the track records and tested strategies for assisting rural America. The System has professors with the sensitivity and know-how to work with people to find solutions to community development constraints.

OPENING STATEMENT AND CHARGE TO PARTICIPANTS

Dr. Thomas T. Williams, Chairman
PAWC Planning Committee

At the sound of the "cow bell," I declare the 41st PAWC in session. As can be observed from the program, the PAWC Planning Committee has put together an array of activities, and, as Conference Chairman, I want to express appreciation to that committee for the work they rendered. Review of the program will show that the Planning Committee is asking this august body to spend its time addressing some major contemporary issues facing the land-grant system in general and the 1890 Land-Grant Universities and Tuskegee Institute in particular.

The 1983 Conference Theme, "The Role of USDA, Land-Grant Universities and Other Agencies in Assisting Rural America—Research, Education and Technology Transfer" is very timely. These three roles mirror the programmatic thrust of all agencies committed to activities designed to improve the quality of life for rural people.

Analysis of the PAWC preregistration list provides a bird's-eye view of the participants. For example of the 150 participants who preregistered:

—45 percent are from the Land-Grant system (mostly from the 1890 Land-Grant Universities and Tuskegee Institute).
—30 percent of the participants come from federal agencies. (Thanks to the Honorable John Block, Secretary of Agriculture, we have the largest number of participants from that Department in the history of PAWC.)
—15 percent of the participants are from the private sector (corporations and foundations); and
—10 percent of the participants are individuals with day-to-day contact with rural people (county agents and community leaders).

While we have a wide array of people and agencies in attendance at this conference, we are not pleased with the private sector nor the community level participants. Certainly we have made progress in expanding the resource base of the conference, but we have not been as successful in expanding the personnel and staff who are in contact with rural people on a daily basis—the Cooperative Extension personnel from the 1890 Land-Grant Universities and Tuskegee Institute. We will need your cooperation to realize wider involvement of other agencies (the private sector) and the Cooperative Extension county agents. It stands to reason that the one group who could significantly benefit from the PAWC dialogue is the community level personnel—Cooperative Extension.

Contemporary Issues

The latter comment raises another question, "What are the contemporary issues faced by the Land-Grant System?" As you know, the

USDA, Land-Grant Universities and other agencies represent a "team" responsibility to assist rural and urban people. Collectively, these entities are involved in: (1) instruction or education; (2) research or the discovery of new knowledge; and (3) outreach or the transfer of knowledge to clientele utilizing the extension machinery. Today, these basic functions of the Land-Grant system are being tested as never before. For example, since the last PAWC, we are reminded of three study findings that will have far-reaching impact upon our work and programs.

First, we have been told that our educational system is in such disarray that our students will not be capable of negotiating the highly technological society we have helped to create.

Second, earlier this year, the USDA Office of Rural Policy issued its report, "Better County—A Strategy for Rural Development in the 80's." The fundamental premise of the strategy is that local and state governments have the right to decide how public resources should be spent in rural America.

Third, we are told by the year 2000 there will be no Black farmers in the U.S.A. if the present rate of decline continues. This group of farmers represents the major clientele of the 1890 Land-Grant Universities and Tuskegee Institute.

The three study findings cited above will have far-reaching impact on the 1890 Land-Grant Universities and Tuskegee Institute. Already taxpayers, including lay-leaders, are suggesting that the Land-Grant system overhaul its operation. Other critics argue that the Land-Grant system has been so efficient in the development of new breeds of animals and improved varieties of seeds (all to increase farm production), that the system has become insensitive to activities that enhance a man's relationship to himself and others. Some individuals would argue that the Land-Grant system has moved into such a programmatic posture that it lacks the "willpower" to attune its functions to the humanitarian needs of the rural or urban clientele.

As an Agricultural Economist who has been involved with program design, implementation and evaluation for over 30 years, I am offended by these negative characterizations of the Land-Grant system. Your presence at this conference is an indication that you want to register similar feelings to these critics and you want to approach the accusations in a positive manner.

What Do We Want From The 1983 PAWC?

It is our sincere hope that you give serious thought to the role the USDA, Land-Grant Universities and other agencies can play in helping rural people improve their quality of life. During our stay together we want to explore ways by which we can collectively maximize our efforts and resources toward the realization of a full and wholesome life for rural people. Present at this conference is a reservoir of unique expertise necessary to influence and impact local, state and national policies for the clientele we serve.

The bottom line of what this conference is all about can be summarized in these words, "to continue our dialogue designed to improve the quality of life for rural people." Specifically, we want each agency and group to know what each other's priorities are in the areas of research, education and extension so that we can complement each other's activities. Individually, our resources (human and financial) are too meager to ignore each other's uniqueness. Land-Grant Universities, foundations, the private business sector, USDA and other agencies must collaborate to address relevant problems. Therefore, it is important that the Land-Grant Universities know that the dialogue once started will finish and result in meaningful programmatic activities. Our charge to the various entities (Land-Grant Universities, USDA and foundations) present at this PAWC is as follows:

—To the Land-Grant Participants:

We want you to prod the federal agencies relative to what they are doing in rural America and how your expertise can be fuller utilized in their program thrust. We would hope that you explore programmatic ways to address the declining number of Black farmers. The 1890 Land-Grant Universities and Tuskegee Institute have a proven track record for the development and the delivery of education to the nontraditional population and they stand ready to expand such efforts if provided the opportunity.

—To Participants from the USDA and Other Agencies:

We want you to leave this conference with a keener appreciation of what the 1890 Land-Grant Universities and Tuskegee Institute are doing in the areas of research, instruction and technology transfer. We want you to see through the eyes of land-grant participants the manner in which they go about their responsibility of designing and implementing programs for rural people. We want each federal and private agency represented at this conference to leave with an agreement to work collectively toward a formal linkage in one or more of the land-grant functions (research, instruction or technology transfer).

—To the Private Sector including Foundations

We challenge you to work with the universities to develop innovative or pilot programs in the three basic land-grant functions. There is a need for programs in the area of continuing education, and we need your support in the implementation of pilot projects having broad implementation. For example, we need a Training Program for Cooperative Extension personnel. We must not employ a college graduate (Extension Agent) to work with limited resource farmers or urban people without having in place the necessary machinery to undergird or support continuing education for that college graduate.

—To the 1890 Land-Grant Universities and Tuskegee Institute

We want you to get a bonus from this conference. We solicit your cooperation in the formulation of a Hall of Fame Awards component to

the Annual PAWC. The Hall of Fame concept is intended to recognize individuals who have distinguished themselves in the area of public service. The President of Tuskegee Institute, Dr. Benjamin F. Payton, has taken the leadership in spearheading this idea. The other 1890 Land-Grant presidents have designated a liaison person to serve on the PAWC Awards Committee and during this PAWC we will convene the initial meeting of this committee. It is our hope that by the 1984 PAWC we will have the first induction into the Hall of Fame.

If, at the end of the Conference you still have some burning ideas or issues that were not fully addressed, please leave them with me so that we can include them in the conference proceedings to be published early next year (1984). If you have any problems during your stay with us, please **SEE ME**; if you have any positive comments to make, please share them with President Payton; and if you are highly motivated by what will be said during the conference and workshops, please tell your friends and encourage them to attend the 1984 PAWC. We wish you an educationally rewarding conference.

THE ROLE OF TECHNOLOGY TRANSFER IN ASSISTING RURAL PEOPLE

Mr. Preston Davis
Office of Small and Disadvantaged Business Utilization
U.S. Department of Agriculture
Washington, D.C.

I am extremely pleased to be participating on this distinguished panel on technology transfer. I have a different perspective on this topic—a business oriented viewpoint. The word "technology" is defined as a branch of knowledge which deals with the industrial arts. Industrial arts are defined as resulting from **productive labor.** Productive labor means jobs, businesses and stability for a community. Productive labor means improved economic status for an area. And that is part of the reason why we are all here. We are here to discuss ways to improve the quality of life for people residing in rural America. We would all agree that a basic element to improving the quality of life includes a means of earning a living. If we want to encourage residents to remain in the rural areas, and indeed we do—they must have jobs—and **productive labor.**

There is a great need for improvement in the minority enterprise arena. The first census of minority-owned business showed that in 1969, America's 35 million people who were members of minority groups—17 percent of the population—controlled only four percent of the Nation's business enterprises. Gross receipts from their firms accounted for less

than one percent of the total U.S. business receipts. The problem is compounded for rural Americans. The lack of job opportunities is probably the greatest single problem in rural America. The American farmer, plagued by falling commodity prices and mounting operating costs, has been especially hard hit by recent economic adversity. For many farmers, not even additional part-time jobs have helped to make ends meet. The situation does not improve for minority entrepreneurs. Although there have been improvements, they have not been terribly significant. Here are examples of some of the characteristics of some of the Nation's top 100 black businesses as reported in "Black Enterprise" Magazine.

> These companies are primarily in the distribution or service ends of the economy. There are very few manufacturers.
>
> Not one would rank among the 1,000 largest companies in America.
>
> The **combined** sales of the top 100 black-owned companies passed the $2 billion barrier last year for the first time, reaching $2.17 billion. That **total** would rank 177th on the Fortune 500 roster.
>
> The top 100 black-owned firms list is extremely fragile — only 13 of the top have been on the list every year since it was started in 1973.

We are making every effort to turn these trends around in the minority business community. The current Administration is pursuing a partnership of the Federal and private sectors. I can address some of the initiatives emanating from the Federal procurement process and our attempts to bring minority business into the mainstream of Government purchasing. I will start by addressing the Administration's role in minority business enterprise.

Administration Support

There has been great interest recently in improving the status of minority business enterprises. President Reagan has issued Executive Orders promoting minority business enterprises and proclaimed the first week in October as Minority Enterprise Development Week annually. He has also established goals for developing minority business enterprises. The Department of Commerce's Minority Business Development Agency (MBDA) and the Small Business Administration are required to assist directly in the formation of at least 60,000 new minority businesses over the next ten years. During the same period, the Administration will assist in the expansion of at least 60,000 minority businesses or 10 percent of the approximately 600,000 minority businesses that already operate in America today. They will place particular emphasis on labor intensive businesses and those in industries with high growth potential.

Assistance Available)

Before I provide you specifics about contracting with the Department of Agriculture, I'll give you a very brief overview of general assistance

available from the Federal sector for minority business enterprises. I sincerely hope that some of the opportunities I cover will strike a chord. Perhaps some of the participants to this conference will initiate activity to start or stimulate a business. Perhaps you might know of a business-person looking for additional markets or know of someone who is interested in starting a business. I am here today to help disseminate information and to seek your assistance in filtering the message down to the grass roots level. Hopefully, we can help stimulate some interest in business opportunities which can in turn result in jobs and **productive labor** in rural communities.

To start, let me tell you about general assistance programs which are available for individuals first entering the business world or for entrepreneurs unfamiliar with the Federal procurement network. The Department of Commerce has a new comprehensive program which covers the entire country. Their Minority Business Development Agency (MBDA) has developed a network of Business Development Centers which can provide assistance to the Nation's minority business community. Entrepreneurs can gain access to vital information leading to new government and private business opportunities, successful marketing techniques for export sales, and new sources of financing for acquisitions and mergers.

MBDA has funded 100 Business Development Centers (BDCs) in areas with the largest minority populations throughout the country. The BDCs are designed to perform three specific responsibilities: increase the formation of new minority-owned businesses; expand existing minority-owned firms; and minimize business failures among minority entrepreneurs. The Centers will maintain contacts with major corporations and utilize other Federal, State, and local government agencies to identify new contracting opportunities. I have a list of the 100 BDCs and would be happy to further discuss their locations with you later.

Another way to generally learn about contracting opportunities in the Federal sector is through the Offices of Small and Disadvantaged Business Utilization (OSDBU). Every Federal Department has an OSDBU created in accordance with P.L. 95-507. These are high-level offices which are responsible for overseeing their Department's small and small disadvantaged business programs. We monitor the goal setting process and act as advocates. Any OSDBU Director should be able to advise you about contracting opportunities in his or her Department. This is an excellent first step to learn about what is happening in each Department. I also have with me today a list of the OSDBU Directors and would be happy to share this with you after the panel ends. A few years ago, I organized my counterparts in the Federal Government into the Directors' Group for the purpose of exchanging information and talking about our successes and failures. We share new ideas and developments which assist us in providing maximum assistance to small and minority businesses. Our group meets once a month and has proven to be a valuable forum to learn about current events which impact our programs. Also,

because we are continually familiarizing each other about procurement opportunities in our own agencies, we are able to make referrals to business people about all the various Federal sources available to them. The Directors' Group has been an effective communication link in support of the small and minority business program.

The responsibilities of this office is that of providing Department-wide liaison and coordination of activities related to small and disadvantaged businesses with the Small Business Administration (SBA), the Office of Management and Budget's Office of Federal Procurement Policy (OFPP), the Minority Business Development Agency (MBDA), the President's staff on Intergovermental Affairs and Cabinet Council on Commerce and Trade and a host of other functions related to internal operations of USDA, as it relates to Small and Disadvantaged Business Utilization.

Now let us concentrate on what the Department buys and how the rural minority business person can fit into our program.

The U.S. Department of Agriculture is well known for fostering programs which have supported the American farmer, but we are also actively seeking minority participation to fulfill contract needs generated by other responsibilities of the Department. These other categories include research, education, conservation, marketing and consumer services, regulatory work and agricultural adjustment and rural development. This resulted in $2 billion in contract awards during fiscal year 1983. The Department is BIG business—employing more people than Xerox (85,000), with twenty-one program agencies (from the U.S. Forest Service to Food and Nutrition Service), operating over 274 major diverse programs (from food stamps to soil conservation), and a budget in excess of $19 billion. Little is known about what the Department buys and how to access the requirements because of its highly decentralized procurement organization. Are you aware that everything from sheepshearing services to the construction of laboratories and purchase of raw and processed food commodities are obtained through contracts by the 260 procuring offices of the Department? The shopping list of goods and services, including construction, is varied and offers extensive opportunities to small and large minority-owned businesses. Last fiscal year, the Department awarded 57 percent of its contracts to small businesses with less than two (2) percent going to minority-owned firms.

What types of goods and services are sought by the Department? The majority of our procurement budget is spent for food purchases to support domestic and export commodity programs (over $1 billion or 58 percent). The storage, handling and transportation of that food is another one of our major expenditures.

Other large segments of our budget are spent on construction activities—$245,522,000 or 14 percent—lease and/or rental of motor vehicles, tree planting and thinning (camp ground cleaning) and land treatment practices—$77,456,000 or 4 percent of our expenditures.

The Agricultural Stabilization and Conservation Service (ASCS)

purchases agricultural commodities, authorized by Public Law 480, Title II, for donation to needy foreign governments in relieving famine, meeting extraordinary relief requirements and furthering economic development. Commodities which have been purchased under the Title II Program include: wheat, sorghum, corn, flour, soy fortified flour, bulgar, soy fortified bulgar, wheat soya blend, soy fortified cornmeal, salad oil, nonfat dry milk and whey soy milk. There are no minority-owned businesses supplying commodities for this program. I have a list of individuals to contact if you are interested in supplying these commodities.

Another export sales program administered by the Office of General Sales Manager, Foreign Agricultural Service (FAS) is Public Law 480, Title I. This program provides for U.S. Government financing of sales of agricultural commodities to friendly countries. Sales are made by private businessmen, usually on a bid basis in response to tenders issued by the importing country. Agreements for the sale of eligible commodities are negotiated with foreign governments through diplomatic channels. Bids are accepted or disapproved by the buyer subject to price approval by USDA. Title I commodities in recent years have included wheat, wheat flour, corn grain sorghum, rice, cotton, tobacco, soybean and cottonseed oil, blended foods and tallow.

Domestic commodity purchases, in support of the National School Lunch Program and other nutritional food programs, are the responsibility of the Agricultural Marketing Service (AMS). Purchases are mainly for meat, poultry, canned fruits, vegetables and juices. These foods, purchased in bulk quantities, are used primarily by the nation's schools. The hamburger or chicken which your son or daughter ate in the school cafeteria came from the millions of pounds of frozen ground beef and frozen cut-up chicken purchased by AMS. An Interagency Agreement between AMS and the Small Business Administration provides that a sizeable portion of these commodities be offered to eligible disadvantaged 8(a) firms.

The commodities purchased by the Department must be stored and transported. Few minority-owned trucking firms are participating in the intra and interstate movement of agricultural products and we are aware of no minorities involved in the warehousing and handling of commodities.

Major construction activities of the Department are accomplished by the U.S. Forest Service (FS), Soil Conservation Service (SCS), Agriculture Research Service (ARS), and the Animal and Plant Health Inspection Service (APHIS). These activities include: road and bridge construction, earthen dams, remodeling and renovation of buildings, stream and channel bank improvement, greenhouse construction, storage sheds, prefabs, laboratories and animal holding pens. Almost all of the work is done in rural areas and is set aside for small business. Building construction firms wishing to diversify their activities are encouraged to look at the opportunities in USDA as contractors and subcontractors under Section 211 of Public Law 95-507.

I have a list of USDA agency contacts which I can give you later if you wish specific information about any of our programs.

How Can We Help?

We also need to devise some innovative methods of incorporating the minority business person in the Federal procurement cycle. Many minority businesses are too small to engage in government purchases. We have to consider joint ventures and cooperatives. The technical assistance available from the Federal sector is unlimited. We must take advantage of all the free and low cost assistance we can gather.

Let's use the cooperative system for an example. I would think you are aware—that USDA has an Agricultural Cooperative Service which devotes its total effort to preserving and improving the heart of America—the family farm. Family farmers can use the cooperative form of business to increase their income and enhance their quality of living. They use cooperatives as an extension of their farm businesses to jointly purchase production supplies, process and market products and perform related services. Our Agricultural Cooperative Service can assist coops by providing research, technical assistance, educational information and history and statistics. That agency is prepared to work with well-established commercial farmers or with those with low volume and limited resources. Another agency in USDA, the Farmers Home Administration (FmHA), offers several varied loan programs to assist the small farmer and small rural businessperson. One of their programs, the Business and Industrial Loan Program (B & I), is a loan guarantee for businesses and industries located in areas outside the boundary of a city of 50,000 or more. Priority is given to applicants for projects in open country, rural communities and towns of 25,000 and smaller. The basic purposes of this program include developing or financing business or industry, increasing employment and controlling or abating pollution. I have brought along some pamphlets about the B & I Program. The other fine USDA agencies represented at this conference — Extension Service, Economic Research Service, and the Cooperative Research Service — all offer assistance which we must utilize in order to progress.

Another "innovation" of which minority business must take advantage is the subcontracting opportunities made available in Section 211 of P.L. 95-507. Every major Federal contractor (contracts over $1 million for construction and $500,000 for goods and services) is required to submit a plan establishing goals on how they will subcontract with small and minority businesses. We need to get in on the ground floor. This is an excellent means of entering the realm of Federal contracting.

Conclusion

In summary, we would all agree on the need. Quality of life in rural America can positively be improved by an elevation of the rural economy. Thriving businesses and **productive labor** will encourage the rural population to remain. And—one means of providing stability in the rural community is businesses which are dependable and which have a contin-

uous market. The Federal procurement network has frequently been one market overlooked by small, minority business. Please help me spread the message that minority business is welcome. We realize that doing business with minority business is good business. Offices such as mine and all the other USDA representatives here are ready and willing to help. I need your commitment that you will assist in informing the rural community that we are here and waiting to work together.

THE ROLE OF ECONOMIC DEVELOPMENT DIVISION IN ASSISTING RURAL AMERICA

Dr. Ken Deavers, Director
Economic Development Division
U.S. Department of Agriculture
Washington, D.C.

For more than 20 years we developed policies and programs to promote rural development as a response to conditions of rural out-migration and economic stagnation. However, changes in the economic and social character of rural America, culminating in the population turnaround of the 1970's, have fundamentally altered the setting for future rural policy.

Considerable attention has been focused on the rural population turnaround as the most visible sign of change in rural growth patterns, but recent rural experience encompasses more than improved population retention and net in-migration from larger urban areas. Equally important are the growth of non-traditional rural industry and the growth in size and complexity of rural government and other institutions. The strength of the underlying forces shaping rural development, including a economic decentralization, modernization of rural life, and preference for rural living make it unlikely that the 1970's were an aberration. Moreover, the surplus labor pool in agriculture (and other rural "extractive" industry), from which many rural to urban migrants originated, is now largely depleted.

Rural and urban once comprised a useful dichotomy. Distinguishing characteristics involved more than scale. For rural areas there was a dependence on agriculture and extractive industry. (One result, of course, was personal income levels much below those earned by urban residents). Also, because rural areas were relatively isolated, and because movement of people was largely away, they were likely to be more socially and culturally homogenous. Thus, they shared important views about the amount and kind of government, about limiting its role in everyday life, and about the predominant role of family and religion in shaping behavior and beliefs.

This meaning of rural remains a powerful social and political force. However, given the divergent development paths that rural areas have followed in the past 20 years, its relevance to public policy in the 1980's is questionable. In sum, rural areas have become increasingly diverse and decreasingly agricultural. A rural development policy intended to address the needs of the entire rural and small town population will not succeed if focused primarily on farming and agribusiness.

Given the largely non-farm complexion of rural development policy and programs, questions are often raised about the appropriateness of rural development research with ERS. In that regard it is useful to note that the Agriculture Act of 1970, Rural Development Act of 1972, and Rural Policy Act of 1980 all assign principal responsibility for rural development planning and coordination to the Secretary of Agriculture. Thus, EDD's program provides research to support USDA's legislatively mandated roles: operating programs to assist individuals, firms, and local governments; advocating rural interests to other Federal agencies and developing strategies and setting goals for Federal rural development efforts.

Research Priorities

Condition Monitoring—As a rule, I think too much of our research attention is devoted to purely descriptive reporting of rural conditions and changes, relative to efforts to understand the causal forces at work. At the same time, I am convinced that simple, straightforward reporting of rural conditions and changes is essential to public awareness of "ruralness." With nearly 73 percent of the Nation's population living in metropolitan areas, and over 40 percent in areas with a population of one million or more, the predominant experience and perception of our society is urban. If the concerns of the over 60 million people who call rural America their home are to receive attention, and to influence Federal policies that affect them, their current situation must be well-known.

Our ability to monitor current rural conditions improved significantly during the past decade, but high data collection costs and budget cutting have eroded some of those gains, and threaten still other sources of rural data. USDA's recently announced rural strategy, recognizing this problem, takes a particularly strong stand on the adequacy of rural data. It says:

> "To help insure that statistical gaps do not impede rural America's access to Federal resources, and to ensure that policymakers at all levels of government have an accurate assessment of rural problems and potentials, the U.S. Bureau of the Census, Bureau of Labor Statistics and Bureau of Economic Analysis will improve the quality and specificity of information collected and reported on rural areas."

We have a major responsibility to see that systematic efforts are made, not only to protect essential existing rural data series, but also to move

forward with expanded rural data collection activities to fulfill this policy mandate.

Rural Development Modeling — Considerably more research attention needs to be devoted to "models" that explain the rural changes that we describe and monitor. These models need to incorporate the insights that various social science disciplines bring to rural development. In fact, there should be important interactions between our models of development and what we choose to monitor. That is, we should be able to demonstrate the relationship between changes in the conditions we are monitoring and the social and economic well-being of rural people.

Clearly, rural development policy is **future** oriented, that is, it is designed to shift the outcome of national development trends to increase the share of development captured by rural areas and rural people. Or, if you prefer a more modest characterization, it aims to improve future development opportunities for some specific set of rural places and groups of rural people within the rural share. In either case, appropriate policy intervention requires that we have a reasonable understanding of what future trends will be in the absence of intervention, and a clear idea of the consequences of intervention. We require this knowledge at both the national level and at the community level. Unfortunately, we are very short on both of these counts.

Despite the difficulty of modeling future rural change, it is essential that we devote some research resources to this task. My preference would be to develop our knowledge of causal factors influencing key components of rural well-being and change, rather than to attempt a holistic approach. I believe the risks in developing partial models and partial solutions are minimal, and I seriously doubt that we are in a position to be more ambitious.

Distributional Studies—In the literature of regional science, spatially oriented development policies are justified on two grounds: efficiency and equity. The efficiency rationale involves various kinds of market failure, which if corrected, make it possible to achieve a higher level of national output from the same level of inputs. Thus, over **some** time horizon policies that achieve an improved distribution of economic activity make (or at least have the potential to make) everyone better off.

The equity argument, of course, is that whether or not the observed spatial distribution of develoment is efficient, the resulting distribution of outcomes is unacceptable. Even if correcting these distributional inequities results in real costs, e.g., a reduction in national output, regional policies are justified.

In my judgment, most of the spatially oriented programs with which we have experience in the U.S. over the past 20 years have been largely justified in terms of achieving distributional equity. Yet our basic understanding of the distributional outcomes of development remains relatively primitive, except in the most aggregate terms: average or median levels of urban and rural per capita or family income, for example.

We need wide ranging research on distributional questions including national/regional analyses across areas and population groups. This should be a major focus of attention in analyses of data from the 1980 Census. But, in my view, such studies using large secondary data sets are **not** a substitute for more limited, localized research specifically designed to increase our understanding of particular kinds of distributional consequences of rural development at the community level.

Rural Typologies — Our ordinary use of the word rural, and the way we divide urban and rural territory, captures enormous diversity within the rural category. In fact, much of the research published by the Economic Development Division in the 70's had documentation of the many dimensions of rural diversity as a major theme. Together with other researchers, I believe we have been largely successful in making that theme part of the public knowledge base, from which discussions of policy and programs for rural development derive. Unfortunately, I believe we have been **too** successful. Many of the participants in the dialogue on rural policy have drawn the inappropriate conclusion that every rural area is so different from every other rural area that there is no need for (indeed no real possibility of) **national** rural development policy and programming.

It seems to me that what we need is research aimed at providing new social, economic, and political content to our categorization of places as rural. My hypothesis is that most rural areas can be aggregated into a handful of "types," and that this typology will contribute to a better understanding of commonality as well as diversity among rural areas. The power of typology of rural America is its capacity to capture a substantial amount of social and economic detail about rural places, relevant to policy formulation. That is, it serves as a paradigm of rural America for policymakers. Thus, the objective of categorizing rural areas is improved public policy formulation, i.e., increased understanding of the various kinds of public policy and programs likely to be important to the future development of rural places.

RESEARCH PROGRAM

EDD's research is organized into six broad subject matter areas: Population, Income, Rural Labor Markets, Rural Business and Credit, State and Local Government, and Housing. In each of these areas we have an ongoing program of condition monitoring, and modest efforts on model development and distributional analysis. We also have a separate rural policy project focused principally on the issue of rural typologies. Without attempting to be exhaustive, the following sections describe important issues expected to shape the content of the research Division's program for the next several years.

Population Research—Over the years a growing percentage of farm operators and farm workers have become nonfarm residents. This change in the pattern of farming and rural living has made residence based measures of the farm population and its characteristics increas-

ingly unsatisfactory. Nevertheless, such estimates have been published annually since the 1920's, and since the mid-1950's EDD has contributed ($85,000 in FY 83) to the cost of obtaining data on farm residents from the CPS.

One alternative technique is to measure the farm population by occupation. However, hundreds of thousands of farmers work primarily off the farm and are counted in nonfarm occupations in the Current Population Survey (and the Decennial Census). The multiple job holding survey provided a national count of persons whose secondary employment was farming, but that survey has been cancelled. Another technique is to identify the farm population as those people receiving self-employment income from farming. This approach adequately picks up the farmers who live in towns or whose farm work is a secondary job, but it has other defects. It does not include any farm workers, even if they live on a farm, unless they also happen to have some own-account farming. On the other hand, it picks up from too many people who report self-employment farm income, but who are probably only owners of farm land who receive rent.

We intend to be involved in further research utilizing the CPS data, to identify the population and households that evidence some association with farming through residence, income, and/or occupation. In addition, availability of detailed social and economic data from the Decennial Census makes it possible to explore systematically the consequences of the turnaround, as well as various explanations of the causal forces at work.

Important changes are occurring in the structure of the rural population which appear to have significant implications for rural well-being and rural policy. One component of change which should be the focus of additional work is the increasing number and proportions of elderly people — especially the implications of their concentration and inmovement to particular rural communities. Similarly, there are changes in household size and composition that effect on the need for a wide range of public and private facilities and services.

Income Research—Two complimentary research orientations comprise the focus of our rural income work. They are research on (a) the geographic or spatial characteristics of rural income and (b) on the individual or household characteristics. The research is concerned with describing and explaining the level, composition, and distribution of incomes.

EDD's work has concentrated heavily on geographic income analyses, although we have also traced the level of nonmetro family income (in comparison to metro) and changes in the size and composition of the poverty population. We expect these analyses to continue, but with increased attention to understanding the social, economic, and community factors that affect the level and distribution of income among areas.

We have done relatively little research on questions of the individual or household level and distribution of income. Yet, understanding these

personal income issues is essential to meeting the Department's need for information to coordinate Federal rural development efforts. Research in this area will focus on human capital investments (such as education, training, and job experience), family composition, and demographic characteristics (such as race, sex, age, and disability status) as factors explaining the relative income levels among rural people and households and between them and their urban counterparts.

Specific attention will be given to the nonmetro poverty population; explaining changes in the composition of the population over time, exploring causal factors underlying observed composition changes, estimating future composition changes, and analyzing the potential effects of public policies and programs on the nonmetro poor. Special attention will be directed toward specific subpopulations whose poverty status has changed significantly over time (e.g. the working poor, female-headed families, the aged, the disabled, and minorities).

There appear to be some prospects for merging geographic and individual (household) analyses of income. Since it seems likely that there are significant interactions between community characteristics and personal income levels and distribution, this is an important research area that needs to be explored.

Rural Labor Markets—While agricultural workers constitute a small part of the rural work force, the growing share of all farm work performed by hired workers has increased the vulnerability of farm operators to labor market disruption and change. Thus, research on agricultural labor issues be an important component of ERS's research on farm inputs. Currently, EDD's research on agricultural labor is limited to support ($200,000 FY 82) for the collection of data about the hired farm work force and descriptive reporting of that data. The absence of any meaningful data on the demand for hired workers, and some gaps in the supply side data, have made it impossible to develop a more ambitious program of research. These shortcomings seriously limit our ability to understand agricultural labor markets and to analyze the impact of potential future changes (such as immigration reform, higher minimum wage rates, etc.) on the agricultural industry, or on particular commodities or regions. That situation will not change unless there is significant improvement in the kind and quality of farm labor data collected.

In recent years, EDD's nonfarm labor markets research has examined the distributional effects of economic growth, through a series of case studies of rapidly growing rural areas. These studies, involving extensive primary data collection, trace the impact of rural job creation on labor force status and income of various components of the rural population. In FY 84 data will be collected in an area of Arkansas/Missouri where recreation and retirement have played a key role in development. The increasing cost of primary data collection, the large commitment of professional staff required, the long lead times between survey planning and the analysis and reporting the findings; all of these

factors necessitate a thorough review of EDD's future involvement in additional growth studies.

In a cooperative effort with Florida State University, EDD has recently begun to support research which will delineate a set of local labor market areas for the U.S., based on commuting data from the 1980 Census. These labor market areas will become a principal analytical unit for EDD's labor research during the next several years. That research will focus on developing an expanded set of performance criteria (besides unemployment rates), and increasing our understanding of the effects of economic structure, growth and decline, population and labor force compositions, labor market institutions, and public policies on labor market performance.

Business and Credit Research—The continued growth and well-being of rural areas depends on how well they perform in the competition for additional economic and employment opportunities. For two decades, improved rural linkages to urban areas (including transportation, communication, and financial linkages), and improved rural facilities, services and institutions (public and private) have made rural areas successful in attracting new economic activity. In the 1970's that success extended to the attraction of nearly 4 million new residents through net in-migration. In the process, the economic base of rural America has been transformed. EDD's research on rural business serves to document that transformation and to increase our understanding of its significance for rural development policy.

Our analysis of rural industrial change has concentrated on nontraditional rural industry, almost to the exclusion of agriculture. This represents a serious gap in our research program—while agriculture is no longer the major source of income or employment for rural areas as a whole, for over 650 rural counties it is. Furthermore, like rural America, agriculture itself has been going through significant changes that appear likely to have altered the relationship between agriculture and agriculturally dependent rural communities. Therefore, EDD will begin in FY 84 a program of research on agriculture as an industry. Among the questions that our research will examine are: What kinds of agricultural service industries will be needed to support farming in the 1980's. Where will these industries be located? What types of agriculture are more supportive (have large local income and employment multipliers) of the local rural economy. What portion of U.S. agriculture will become urban oriented with respect to its service industry, capital sources, and ownership and control? What will remain a rural controlled industry with strong ties to rural communities? Can we classify types of agriculture as to their response to and support of local rural economies?

EDD's rural credit research has focused on the nature and performance of rural financial institutions, i.e., on the principal local suppliers of nonfarm credit. As that research has proceeded it has become increasingly clear that other institutions, many of them urban based, are a

significant factor in rural credit markets. Thus, a major part of our credit research over the next several years will be focused on improving our understanding of the spatial dimensions of "rural" credit markets. To do this, we will have to significantly increase our understanding of the demand side of these markets, possibly through the collection of primary data. Also, we need to improve our measurement of rural credit market performance if we are to be able to assess how well rural credit needs are being served.

Rural Governments — Three trends affecting rural governments help to define EDD's research agenda in this area. First, growth in the intergovernmental aid system during the 1960's and 1970's has made local governments heavily dependent on Federal and state aid to finance locally provided public facilities and services. Second, in part because of the increased financial assistance and because of organizational and management changes encouraged by higher levels of government (e.g., the creation of a national network of substate regional planning agencies), local public service quality and quantity appear to have improved markedly. Third, a concensus is emerging that many changes are needed in Federal-state-local responsibilities in the intergovermental system, with the likelihood that more decision-making will be shifted to local levels of government.

Given these trends, and the projected fiscal austerity for all governments throughout the 1980's, we need to significantly improve our monitoring of rural governmental conditions. Another factor that adds to the importance of this activity is the rural population turnaround--certainly population change, especially rapid and unanticipated change, affects the demands for local governmental services. Together with population composition, household size and composition, economic base, income levels, and other social and economic conditions, population change shapes the "market" faced by local governments. We need to expand our research aimed at measuring and explaining differences in the quantity and quality of local government facilities and services. As part of this research program, we will continue our analyses of rural government institutional capacities and the role of quasi-governmental institutions. The more successful these research efforts are, the more likely we are to be able to predict the effects of significant shifts in the intergovernmental system; in particular, how different kinds of rural governments and components of the rural population are affected by these changes.

Efforts to monitor the performance of local governments in a time of significant change are severely hampered by the gaps in the Federal data system. These gaps make it difficult to provide objective research evidence on questions of the condition (and changes in the condition) of rural infrastructure, or on whether the quantity and quality of public services in rural areas have been reduced by the revenue squeeze of the past ten years. Yet, it is assertions about these conditions that shape the content and spending level of rural community development programs. There-

fore, part of our effort in support of the rural strategy's data initiative will be devoted to improving the availability of relevant data about local governments.

Housing Research—Housing quality, traditionally measured by lack of plumbing and/or crowding, has improved so dramatically in all of the U.S. in the past 25 years that rural housing problems are no longer usefully defined by aggregate urban/rural comparisons. EDD's housing research in the 1980's will shift its emphasis away from such studies. We will continue, however, our more recent efforts to identify rural areas where housing quality improvements have kept pace with the rest of rural America, and to identify the causal factors. Also, we will continue our efforts to describe the household characteristics of those inadequately housed segments of the rural population, e.g., the aged and minorities, who are regarded as particularly important targets of public policy. In addition to these largely descriptive analyses, our research will be directed toward explaining differences in the quality of the housing stock across areas, and over time. Availability of the 1980 Census data, and their use in conjunction with 1970 Census data, makes it possible for us to undertake such analyses at a level of detail not otherwise possible. A significant related research effort will be focused on the effect of current housing programs on the quality, quantity, and price of the housing stock and the number and kind of households who have been assisted as well as similar households which are excluded or choose not to participate. Of special concern for public policy are the needs of groups such as low income, elderly, and minorities. The distribution of program benefits to nonmetro households is also of interest.

It seems clear that the long-used measure of housing quality is becoming less useful as a guide to public policy, but there is no concensus on what would be an appropriate substitute. EDD's housing research should include efforts at different conceptualizations of housing quality measurement, and should effectively work with the research and policy community in trying to bring about a meaningful agreement. Among other goals of this effort would be agreement on appropriate data needed.

AGRICULTURAL COOPERATIVE SERVICE ROLE IN ASSISTING RURAL PEOPLE

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The Cooperative Marketing Act of 1926 formalized assistance to agricultural cooperatives in the U.S. Department of Agriculture by establishing a division of cooperative marketing. The Agricultural

Cooperative Service (ACS) is the Department's focal point for conducting cooperative research and policy analysis and providing technical assistance to cooperatives. ACS is a separate agency with the Department and reports directly to the Assistant Secretary for Marketing and Inspection Services, currently C. W. McMillan.

The Cooperative Marketing Act set forth five basic functions the Department was to carry out:

—Conduct research and analysis on all phases of cooperation and publish the results of these studies.
—Conduct studies of operations of individual cooperatives upon their request (technical assistance). Assist groups of producers who desire to form a cooperative (cooperative development).
—Acquire, analyze, and disseminate economic, statistical, and historical information on cooperatives.
—Promote the knowledge of cooperative principles and practices.

These are the missions of the ACS.

To carry out these missions, the Agency has a total staff of about 70 people and a budget in the last fiscal year of $4.6 million. We have no authority or funds for making grants or loans to cooperatives or groups or producers wishing to form cooperatives. We do, however, use some of our funds to conduct research through cooperative research agreements with land-grant institutions.

Our Agency is organized to carry out its missions through an Information and Education staff and three program divisions. The Information and Education Staff handles our publishing and other information functions; works with cooperatives and State cooperative councils on member relations, young farm couples, youth and other educational programs; and publishes **Farmer Cooperatives**, our monthly magazine for the cooperative community.

The Cooperative Marketing and Purchasing Division is the largest of our program divisions. It is organized on a commodity basis, with specialists in three commodity groups and international trade. The staff conducts research related to cooperatives in these commodity areas and provides technical assistance, primarily to established cooperatives. The division currently has 22 active research projects in areas such as:

—Role of cooperatives in potato and grain marketing
—Grower payment practices of fresh fruit and vegetable cooperatives
—Marketing operations of dairy cooperatives
—Electronic marketing of slaughter hogs
—Petroleum operations of farmer cooperatives
—Potential for cooperative grain exports to developing market economies
—Improving risk management systems in grain and livestock marketing cooperatives

The Cooperative Management Division is organized on a functional

basis, with specialists in the areas of cooperative finance, management and operations (including member relations), and policy and legal. The division also has a Statistics and ADP group that conducts our annual survey of farmer cooperatives and publishes an annual cooperative statistics report.

This division is primarily engaged in research but does provide some technical assistance to cooperatives. It currently has 25 active research projects in areas such as:

—A legal treatise on farmer cooperative law
—Cooperative enterprise theory in the agricultural sector
—Development of cooperative finance theory and investment criteria
—Development and analysis of cooperative financial performance measures
—Financial profile of the largest farmer cooperatives
—Structuring cooperatives to improve performance
—Improving member control and decision-making in cooperatives
—The impact of a changing transportation environment upon cooperative grain marketing structure

The Cooperative Development Division is the smallest of our three program divisions. Its major mission is to provide technical assistance to producer groups interested in forming a cooperative and to assist existing cooperatives still in the developing stages to improve their operations or to analyze the feasibility of new operations or services. The division also provides training to developing cooperative personnel and conducts some research on problems facing developing cooperatives.

The division is organized into two program areas. The Feasibility and Development program is staffed by six professionals located in our Washington office. The primary activity of this staff is conducting feasibility studies for groups of producers wishing to form new cooperatives and helping them implement feasible cooperatives.

The Field Operations and Training program is staffed by four professionals, one in Washington and one in each of our three field offices. Our field offices are located in Greenville, NC; London, KY; and Hilo, HI. Our field staff carries on a variety of activities, including:

—Providing general cooperative education and publicizing the cooperative way of doing business
—Identifying and pursuing opportunities to help producers develop new cooperatives
—Working with our Washington staff in conducting feasibility studies and assisting with implementation and,
—Providing intensive technical assistance to new and developing cooperatives on a wide range of organizing and operating problems

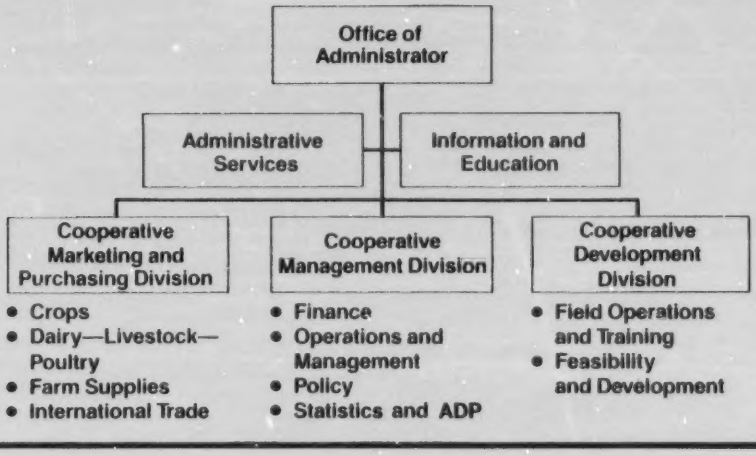
Under the leadership of the Washington-based Program Leader, we also provide training opportunities for directors, managers, and other key employees of new and developing cooperatives. This training covers

such topics as cooperative principles and practices, directors' role and responsibilities, management, financial management, marketing, and bookkeeping.

In addition to agricultural producers, the Cooperative Development Division provides technical assistance to fisherman, forestland owners, and rural producers and handcrafts. Last fiscal year we assisted 57 producer groups and developing cooperatives, and had 30 active technical assistance projects as of October 1. The division also has four active research projects, three of which are being done under cooperative research agreements with land grant universities. The most recent of these is a research project we are helping fund at Southern University to study alternative ways for low-resource farmers to raise equity capital to invest in new and existing cooperatives.

As you can see, our Agency has limited human and financial resources with which to accomplish a big job. We provide technical assistance to producer groups and cooperatives only upon their request. We can't be all things to all people, but we do attempt to respond to all reasonable requests for assistance in a timely fashion. Yet, because of our Agency's small size and limited visibility in the rural areas of this Nation, there are many groups of farmers and other rural people who desire and need our services, but are not aware of their availability or how to request them. This is where you who have direct contact with rural people in y our State can be of great assistance in facilitating the transfer of our staff's technical knowledge and expertise. When you come in contact with a group who needs our assistance, tell them about our services and that they can be requested simpy by writing a letter to our Administrator. In addition, we would like to have you involved with our staff in providing assistance to these groups.

Agricultural Cooperative Service



For those of you who may have an interest in doing research in the area of cooperatives, we would be pleased to receive project proposals that we might help fund under a cooperative research agreement. We are always looking for good research projects and would be glad to work with you in developing a proposal.

THE ROLE OF FOOD SAFETY AND INSPECTION SERVICE IN ASSISTING RURAL PEOPLE

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The Agency, the Food Safety and Inspection Service (FSIS), is actively engaged in the theme of this year's Professional Agricultural Workers Conference—("The Role of USDA, Land Grant-Universities and other agencies in assisting Rural America—Research, Education, and Technology"). I will present, briefly, a few examples of how FSIS adheres to the theme.

To begin, a brief description of FSIS shows that it is a regulatory agency with a mandate to inspect and analyze domestic and imported meat, poultry, and meat and poultry food products to assure that they are wholesome, not adulterated and properly labeled. The Agency also monitors the meat and poultry industries for violations of inspection laws, establishes standards, and approves recipes, labels and facilities for processed meat and poultry products.

Some examples of the involvement of FSIS in the theme of this Conference appear below:

Education

A National Food Safety Poster Contest is conducted by FSIS each year. Participants in the Contest are children in the Kindergarden and Primary Grades in the rural and urban schools throughout the nation. There were about 70,000 entries in 1983, nearly double the number of entries for both of the previous two years. In 1984 the Contest will be conducted as part of the U.S. Department of Agriculture's Food and Fitness Campaign. This Contest, in essence, is an outreach effort to project among the childen and the general public some basic principles involved in the sanitary practices and methods necessary for the safe handling of food and food products.

Research

An ever present issue facing FSIS is the need to be able to improve or develop new methods of inspection to help keep abreast of changes in the

meat and poultry industries. One approach that is used is to work with the Department's Agricultural Research Service in the development and resolution of new research needs to help meet our goals and objectives. Sometimes, FSIS goes outside of the Department to help find some answers to our research needs. One such instance was a contractural agreement reached with Tuskegee Institute to conduct a study of "Flock Testing" as a tool for ante-mortem inspection of chickens. "Flock Testing" was perceived as a discretionary inspection approach. It could be used in conjunction with post-mortem inspection on the highly homogeneous flocks sent to slaughter plants from modern poultry farms. The purpose of the study was to pursue an approach for helping to reduce overall inspection costs through an improvement in the cost-effectiveness of the ante-mortem inspection of chickens.

Technology

An important part of the FSIS inspection program is the keeping abreast of technological changes that can be monitored through the testing of meat and poultry for drug and chemical residues that could pose a danger to consumers in both rural and urban areas. Products containing residue levels found to be in excess of legal limits established by the Food and Drug Administration or the Environmental Protection Agency are declared to be adulterated, and as such they cannot be marketed. The Agency implemented a Residue Avoidance Program (RAP) in cooperation with the Federal Extension Service. This RAP is a new concept for reducing consumer exposure to contaminating residues in meat and poultry. The system is designed to shift the emphasis of residue control from a focus on monitoring and reacting to one of prevention at the source. The aim of the Residue Avoidance Program is to encourage producers to make prevention a part of all stages of animal production.

Thus, through its varied approaches to education, research, and technology, the FSIS is actively engaged in efforts to assure consumers that meat and poultry food products are wholesome, safe, and properly labeled.

POLITICS AND PUBLIC SUPPORT OF AGRICULTURAL SCIENCE AND EDUCATION

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This presentation offers some observations on issues relating to public support of agricultural science and education.

It is my observation that political power of elected or appointed officials is derived from citizens. The framers of the Constitution of the

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United States and the constitutions of the individual states wrote a set of rules to insure this relationship. Two recent presidents discovered that when the citizens rescind political power they are relatively helpless. President Nixon found that when the citizens withdrew their legitimacy from him on the "Watergate" issue, he felt forced to resign. President Carter learned he could not keep his most trusted advisor, Mr. Bert Lance, when the citizens took back their support.

Usually, however, citizens leave power with elected or appointed officials. Different citizens have different levels of interest in different issues. The interested and active citizen wields more power than the uninterested and inactive citizen. Thus elected and appointed officials attempt to anticipate citizen concern and interest in various issues. It is the lack of citizen involvement, knowledge and interest that permits political and bureaucratic "games" to be played in government. The games can only be played when the will of the citizens is not clearly discerned by the political system, otherwise the political system does the will of the citizens.

Politics is multidimensional, not single dimensional. The definition and search for issues is the lifeblood of politics. While no issue dominates political reality for very long, there are a number of issues involving public support for agricultural science and education that are important to the workers in the system.

Public Support For Research — Policy Issues

Numerous individuals and groups are now concerned with the character of United States agricultural research and extension policy. Research and extension were among the issues raised by groups and individuals who penetrated the traditional agricultural political subsystem in the 1960s and 1970s. This penetration allowed environmentalists, nutritionists, conservationists, consumers, and small-farm advocates to join farmers, farm organizations, and agribusiness in participating in the politics of public support for research and extension or outreach programs. Accordingly, a number or increasingly important and often overlapping policy issues must be addressed and resolved by Congress, the administration, administrators of research and extension units, and the countless agricultural science and education constituencies.

Two groups of issues are presented. The first group deals with the level and source of public investment in agricultural science and education, the second with income distribution aspects of publicly supported agricultural science and education distribution.

Level of Public Investment

The level of public investment in agricultural science and education is a major and significant policy issue. Do federal and state governments invest sufficient funds to meet the needs for food and fiber? One way to deal with this question is to look at the payoff from past science and education.

The amount of evidence compiled by economists analyzing the payoff of past agricultural research is growing. Robert E. Evenson, Paul E. Waggoner, and Vernon W. Ruttan have summarized a large number of studies that estimate the return from investment in agricultural research.[1] While the various studies differed in methods, degree of aggregation, period analyzed, and type of research done, high rates of return are reported in each case. They report an annual rate of return of 65 percent for all agricultural research from 1868 through 1926. From 1927 to 1950, the estimated rate of return for technology-oriented agricultural research was 95 percent and for science-oriented research 110 percent. Estimates were given by regions for technology-oriented research for 1948 to 1971. The annual rate of return to technology-oriented research in the South was 130 percent, in the North 93 percent, and in the West 95 percent. A conservative estimate of the economic return to society from public investment and research from the various studies is 50 percent. If correct, these rates of return are high compared to almost any form of public-sector investment, such as water-resource projects.

How accurate are the rate-of-return estimates? Many skeptics at first simply refused to believe these results. A number of the early studies on specific commodities reported "external" rather than "internal" rates of return. The "internal" rate of return is the rate of interest that makes the accumulated present value of the flow of costs equal to the discounted flow of return at a given time. It has also been suggested that the analysts failed to consider complementary technical inputs and the related marketing and extension costs incurred to realize the gains resulting from the new technology. There is also the question of evaluating a successful effort, such as hybrid corn, compared to a broader program of research that includes successes and failures.

The nature of the elasticity of demand is also a factor that affects the rate of return. If the price of the commodity varies greatly with changes in quantity, a technique that increases production will produce a larger amount of benefits for the consumer as compared to the producers. However, if the price of the commodity varies little with changes in production, as in the case of commodities sold in the international trade, then the benefits to producers is likely to be larger than the consumer's benefits to consumers. Recent efforts have been more careful in model specification, measuring costs, and estimating benefits. The evidence of high rates of return to agricultural research (on the order of a minimum level of 50 percent) appears to be strong.

If the agricultural science and education system achieves such high rates of return, why does the political process continue to accord such a low priority to public-sector agricultural research? Possible answers to that question are complicated. One answer concerns the funding of agricultural science and eduction by states. The research paid for by one state can be expected to have an impact on spillover effect on productivity growth of agriculture in the other states. There is a substantial spillover

effect among states in the area of basic research and even in applied research. In the latter part of the 1800s and early part of the 1900s most agricultural research was applied and specific to a particular region. As basic research as a percent of total research increased and as communications among farmers grew, the spillover effects increased. Today, a new variety of wheat or another crop will seldom be grown only in one state. Fred C. White and Joseph Havlicek, Jr., estimated the ratio of spillover to regional benefits in the aggregate as 1.73 for the period 1949-72. The Lake States region had the highest ratio (2.73) and the Northeast the lowest ratio (1.31).[2]

The existence of spillovers is a possible explanation of why states underinvest in agricultural science and education, but it is a less plausible explanation for underinvestment by the federal government. More important may be the controversy over whether and when growth in agricultural productivity resulting from science and education benefits producers rather than consumers. Political groups representing farmers have been the major element in supporting agricultural science and education. If the demand for farm products is growing rapidly, as when exports are expanding, producers may retain a relatively large share of the gains from new innovation. If demand is growing slowly, as was the case in the United States during most of the last 50 years, a larger share of the gains will be passed on to the consumers in the form of lower commodity prices. Until the 1970s, demand was growing slowly; indeed, the major policy issue was surplus agricultural production. Underinvestment now may be the legacy of the commodity surpluses of the 1930s through the 1960s.

But if consumers were the primary beneficiaries in the last few decades, why did they not insist on increased investment in science and education? The benefits to the individual consumers are relatively low, and they are distributed among all consumers. A recent analysis in an Office of Technology Assessment report provides estimates of the benefits accruing to each family as a result of food and agricultural science and education expenditures for a given year. These benefits per family are on the order of $25 per year. Consumer groups, active in recent years, have supported science and education only when food prices were rising rapidly, if at all.

The evidence indicates that the United States is seriously underinvesting in agricultural science and education. Clearly, had the public not decided to invest in agricultural science and education in the past, the current well-being of the United States would have been greatly decreased. Unfortunately, it is not known with certainty how much the well-being of the United States will be jeopardized in the next decade and beyond by current underinvestment in agricultural science and education.

From what sources should funding for agricultural science and education come? The private sector has increased its efforts in real terms. It will continue to invest as long as the expectations of profit exist. Reducing

public expenditures in the hope that the private sector will increase investment would mean that the focus of agricultural science and education would shift toward technology that can be sold and that basic research that does not lend itself to a marketable product would probably be reduced.

Should an increase in funding for publicly supported science and education come primarily from the states or the federal government? There is little doubt that many states will continue to increase their investments in agricultural science and education as they have in the past. However, the rate of increase will probably be less than needed, and some states will fall behind. There is ample evidence based on the beneficiary and spillover effects of science and education that the major source of funding should be the federal government. It appears evident that if the United States is to remain a world leader in agriculture, federal expenditures for agricultural science and education must increase.

Distributional Aspects of Agricultural Science and Education

Who benefits from and who pays for agricultural science and education? These are issues involving the distribution of costs and benefits among producers of agricultural commodities, among consumers of those commodities, between producers and consumers, between farm laborers and operators, among agribusiness firms, and even between generations since technology that conserves basic resources will benefit future generations, perhaps at the expense of the present one. Much of the criticism of past and current agricultural research arises out of these issues. These issues are also related to the undervaluing of agricultural science and education.

The best-known trends of the farm sector are that average farm size has increased and total number of farms has declined. A USDA study projects that by the year 2000 farms will probably be arranged in a bimodal distribution with a large proportion of small farms, an ever-increasing proportion of large farms, and a declining proportion of medium-sized farms. Considerable attention has been given to the number of large farms and to the role of technology in this increase.

There have been attempts to estimate which science and education projects benefit large-scale producers, which small-scale producers, and which benefit all farmers, regardless of size. A sample of state agricultural experiment station projects for FY 1979 yielded the following classification: over 74 percent of the effort was devoted to agricultural production, of which 28 percent was devoted to basic research; 3 percent was useful primarily to agencies of government; 7 percent to small farms; 5 percent to moderate-sized farms; 3 percent to large farms; and 53 percent equally applicable to all sizes of farms. An analysis of research done within the USDA yielded the estimates that 84 percent of the research was not size specific, 6 percent was specifically directed at small-farm problems, and 10 percent was directed at large-scale farm problems.

Agricultural technology, however, is not socially neutral. The voluntary nature of the science and education system results in nonservice to those who lack the sophistication, the social status, and the political clout to obtain such service income-tax rules, farm programs, credit, and farm input markets provide an incentive for rapid adoption by large-scale producers. Thus small-scale producers compete poorly in developing new technology from agricultuurral science and education, even though the vast majority of the science and education is not directed specifically toward the problems of large-scale producers.

But if less technology is developed and adopted, consumers will receive less benefit, as will large-scale producers. However, the benefits of the individual household are relatively low, and the benefits are distributed among all consumers. A recent analysis in the Office of Technology Assessment report demonstrated that low-income consumers benefit relatively more than high-income consumers from agricultural research.[3] The average benefits from agricultural research per family with over $20,000 income was nearly twice as high ($31.00) as for families with income under $5,000 ($16.00). But if the taxes paid by the consumer to support agricultural research are apportioned among income classes, the ratio of benefits to tax payments was ten times higher for the under $5,000 income class (12.4) than for the income class with over $20,000 (1.2). The results of this analysis support the hypothesis that agricultural research tends to modify existing income distribution in favor of the lower-income strata.

Thus society faces a difficult trade-off issue. Should agricultural science and education research favor the small producer and thus achieve more equal income among producers, or should it be primarily scale-neutral with the large producers adopting more rapidly and thus providing benefits that favor the low-income consumer? A reasonable compromise may well be some increase in science and education directed at small-scale producers and a strengthened extension program for small-scale producers with the majority of the science and education effort remaining focused on scale-neutral research.

How much science and education should be devoted to increasing short-run productivity of agriculture as compared to that designed to protect, preserve, and enhance the United States' soil, water, energy, and other natural resources? Much of the criticism of agricultural science and education starting with the pesticide controversy relates to this issues. It is difficult to know the impact of agricultural research on environmental quality. The low-technology agriculture of the past produced undesirable environmental side effects. Much of the early row-crop farming in the South resulted in soil erosion and silting of streams. Large amounts of wastes produced by animals entailed health hazards to farm families. The dust storms of the 1930s in the Great Plains resulted from attempts to cultivate marginal lands with inadequate soil and crop management technology.

The question is still open as to whether or not, on balance, the agricultural science and education establishment has given sufficient attention to the effects of new technology on the environment. It can be argued that the technological advances of agriculture and the resulting growth in agricultural productivity have allowed substantial reduction in the acreage of major crops. Much of the reduced acreage resulted from the destruction of marginal lands highly subject to wind and water erosion. The current environmental problems attributed to agriculture largely involve pest control practices, soil- and water-management systems, feedlot waste disposal, and disposal of residues from food- and fiber-processing activities. Clearly, these problems are more widespread than those of the past. The most controversial issue has been the impact of chemical pesticides used for plant production and protection.

The failure to develop pest-control and soil-management systems that would minimize agriculture's impact on the natural environment could have resulted from an underevaluation of environmental resource amenities. As in other industries, the capacity of the natural environment to absorb residuals from agricultural production has been treated as a free service. The recognition that these services are not free, coupled with regulatory action, has led to a redirection of agricultural research efforts to integrated pest-control techniques and other practices that lead to environmental maintenance or improvement.

The issues involved in the distribution of benefits over time are difficult. There is the problem of who speaks for future generations. It is one thing to raise questions about the future productivity of resources and another to determine with reasonable accuracy the resource needs of a future generation. One could argue that the managers of agricultural science and education are now much more sensitive to issues of protection of the environment than they were before public attention was focused on the issues. Perhaps these issues will have to be dealt with each year on the basis of political calculations and only a small amount of data.

The leadership of the agricultural science and education establishment faces many challenges. Foremost is the reestablishment of credibility and legitimacy with the political system. Even if it is successful, management in the next few years will be difficult. Federal and state governments face financial difficulties. There are still problems brought on by past underinvestment such as obsolete equipment and facilities, difficulty in attracting able young scientists, and balancing of interests among support and client groups.

The leadership of the agricultural science and education establishment has served the nation well in the past. The creation and development of the USDA-Land-Grant System was difficult and required vision and wisdom. If the agricultural research establishment is to serve the nation well in future years, vision, wisdom, and creativity are required during this period of transition for the agricultural science and education establishment.

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THE ROLE OF EXTENSION/TECHNOLOGY TRANSFER IN ASSISTING RURAL AMERICA

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I appreciate the opportunity to be in Alabama and particularly at this outstanding institution. I bring you greetings from my colleagues in USDA and from Assistant Secretary Bentley who is the first assistant secretary in USDA for science and education. I think his appointment is an indication of the interest and support of the administration for science and education.

You have a heritage here at Tuskegee of which you can be justly proud. Its founder, Booker T. Washington, was one of the greatest Black educators in the U.S., and it was he who started rural extension work among Black people. And, how proud you must be of George Washington Carver, who came here in 1896 at the invitation of Booker Washington. Carver alone, as you know, developed hundreds of products from peanuts, sweet potatoes,and pecans, and then in true Extension-style, convinced southern farmers to grow these crops in place of cotton as a new source of income.

Secretary Block has identified research and extension as important priorities of his administration. He has emphasized that we must maintain our proven levels of efficient productivity through the **prompt** transfer and application of new knowledge and research findings.

With this in mind, just two years ago, Secretary Block and Robert Clodius, president of the National Association of State Universities and Land-Grant Colleges appointed a 21-member committee to study the

future of the Cooperative Extension Service. The findings of this committee were presented to Block and Clodius and made known via a nationwide audio teleconference from Washington last February. The committee's report, entitled, "Extension in the '80's," reaffirms the need for life-long learning and recognizes the Cooperative Extension Service as a tested system for that process.

The report emphasizes that the Extension Service has been a major asset to America and to her people, and that Extension has played a key role in making U.S. agriculture the envy of the world. Of that, we can certainly be proud.

The report also acknowledges that the rapidly expanding and changing knowledge in today's world makes Extension's central mission, the transfer of knowledge, more important now than ever before. The "Extension in the '80's" report clearly articulates the mission of Extension to be education through which we "disseminate and encourage the application of research-generated knowledge and leadership techniques to individuals, families and communities."

Extension through its educational programs promotes a healthy environment, a sound system for food and fiber production, prosperous communities and strong families. Because this is an ever increasing need in our fast-changing environment, "Extension in the '80's" concludes that "the concept of Cooperative Extension in the '80's" concludes that "the concept of Cooperative Extension is as sound today as it was when formulated nearly 70 years ago."

Although economic development continues to be a major thrust, increasing consideration is being given to social, and human development as we move through the current economic pressures. We will continue to provide national leadership for helping States deal with energy, environment, safety, health, housing and other facility and service needs, particularly as these affect agriculture and rural living. I see our main job in Cooperative Extension as **teaching the people how to live as well as how to make a living.**

Such a national responsibility requires a greatly expanded effort for improving our communication skills in providing rapid, up-to-date information on changing conditions. The Extension system has a tremendous capability with a delivery system no other department in federal or State government can match. Extension is recognized as a leading technology transfer organization.

The farmer who is best informed and has the capabilities of applying the latest in scientific, technical, and management know-how will have the greatest opportunity to achieve success in an agriculture where he is competing not only with American farmers but farmers in other countries producing similar or competing products.

With farmers in general becoming increasingly well educated and more sophisticated, this calls for our programs to be constantly updated in terms of subject matter as well as methodology and means of communication, or technology transfer.

"Technology transfer" was unheard of in 1914 when Smith and Lever created the Cooperative Extension Service. Yet, for the past 7 decades, technology transfer has been at the heart of Extension programs. Seaman A. Knapp, in founding the Extension Service, was transferring scientific know-how to farmers in Texas when he demonstrated that a good cotton crop was possible despite the boll weevil. County Extension agents have, since that time, used this mechanism and other methods in assisting families—urban and rural—to solve their problems.

The simple farm demonstrations of Knapp continue today, but the use of more sophisticated methods is growing in importance. Although the traditional site visit is still frequently used, many of today's demonstrations are supplemented by electronic technology and the print media. The subjects demonstrated for some farmers are more sophisticated too—conservation tillage, solar energy, integrated pest management and others.

Extension's policy on technology transfer places a high priority on transferring technical information or "know-how" based on research and knowledge from State land-grant universities, federal research laboratories and the private sector including industries and foundations. Transfer of such information has been basic to Extension programs designed to meet the needs of farmers, ranchers, foresters, homemakers, and youth and their communities.

While ES has responsibility of keeping State Extension Services informed of assistance available from many sources at the national level, we must maintain our central educational posture of providing and encouraging applications of up-to-date information for the benefit of our direct clientele. We are in the business of promoting or "selling" other agency programs.

We do have an educational responsibility of helping individuals, families, businesses, and communities understand the various opportunities and alternatives available to them so they can make sound decisions. Agencies of government at all levels will establish their own extension-type delivery system if ES at the national level does not maintain effective cooperative relations with these agencies and encourage State Extension Services to do likewise.

The land-grant university system and the USDA—the three-way partnership, if you will — have only part of the research information and talent needed in this area. Additional information and resources should be sought through increased linkages with other federal agencies and research-oriented institutions.

Extension programs do not start from the federal level and filter down to the people, rather they respond to the needs of the people and work that message to the top. An important concept is the involvement of people in identifying problems/needs and determining highest priority items to be addressed through Extension programs.

Extension's job is essential, and it is challenging. One important challenge is to remember that Extension is a two-way channel. It's easy to

think of ourselves as giving farmers and others what we think they need to know. But, we must also make certain we know what it is our clientele need most. We have research that is problem-oriented and a delivery system that gets solutions out to the farmers, and we must keep plugging to improve that system.

A concern is the decline in Black farm ownership. It has slipped from nearly 7 million in the 1930's to less than 3 million today. However, the decline in total number of farms has also declined. In the 1930's there were 6.5 million farms. Today, there are 2.3 million farms. Secretary Block appointed a USDA task force earlier this year to review USDA programs for their effectiveness in addressing the special problems of Black farmers.

In our response to the Secretary, it said, "we endorse the philosophy of the task force report that USDA and the land-grant universities can make significant contributions toward addressing the needs and problems of Black farmers and Black farm ownership through Extension educational programs in farm management for the farmers and in the area of career awareness and opportunities in the food and agriculture system for Black youth."

Copies of our recommendations, of which there are more than a dozen, have been sent to directors and administrators. Here are a few of those recommendations.

—Promote the effective use of ES-USDA programs and operations which affect or may contribute to the establishment, preservation and strengthening of Black farms.

—Promote the use of many agencies (federal, state, local) and agricultural associations, professional organizations, volunteers and others to help Black farmers resolve their problems.

—Provide the managerial and organizational framework through which joint or collaborative undertakings with Federal agencies, private organizations, and 1862 and 1890 institutions can be planned and implemented in a continuing manner that helps meet the needs of Black farmers.

—Establish a communications network for research and experience-based information that will be helpful to 1890 and 1862 land-grant institutions in promoting the successful operation and retention of Black farmers.

—Assist the 1890 and 1862 institutions in obtaining financial assistance so they may render technical and management assistance to Black farmers and help defray the costs of pilot projects or demonstrations designed to overcome the special problems of Black farmers.

—Strengthen career awareness programs to encourage young people to seek agriculture and agribusiness as a career. Provide for new exposure for Black youth through youth employment programs.

In our report to the Secretary, we conclude that "The Extension

Service, USDA, will respond, as resources permit, to requests from other departmental agencies to provide liaison and assistance that may be helpful to them in their relationship with State Extension Service and local governments as they endeavor to carry out corresponding responsibilities for the requirements in the Task Force recommendation. Other departmental agencies, must however, recognize their responsibility to provide adequate resources to the State Extension Services where significant support is requested in carrying out agency responsibilities."

One of our 1890 schools, North Carolina A & T University, has developed a land ownership information program that is being carried out with Black landowners in the State. As a part of this program, which was financed in part by special funds provided by ES-USDA, Extension personnel have identified minority landowners, identified sources of information and compiled a resource information handbook as well as additional educational materials and have conducted at least five land ownership forums in various counties of the State. Attendance at the forums has been as high as 100 participants. Recently, we funded A & T so they can extend the program to surrounding States.

Some unique features/strengths of our Extension system have contributed to its success. From my perspective, these features/characteristics include:

—A partnership between USDA/federal government, land-grant universities/State governments and local governments which permit us to respond and mesh national, State and local needs.

—Utilization of research and university knowledge as the base for our educational programs, which has provided for objectivity in our programs leading to credibility with our constituency.

—People involvement in the planning and conduct of Extension education programs; no other agency of government or organization equals the 1.5 million volunteers contributing to our programs. This involvement contributes to the relevancy and effectiveness of the Extension system.

—Utilization of educational methods tailored to the content and to the learner.

—Continuous funding that permits long-term planning and sequential programming.

—Cooperative programming with other government agencies and the private sector resulting in collaboration rather than competitive efforts.

—Competent personnel with the attitude and philosophy of helping people help themselves through education. The majority of the personnel live in the communities in which they work, making them sensitive and responsive to people's needs.

—Integrated program delivery at the local level—one Extension program, not several—the philosophy underlying the single program concept in those States with both 1890 and 1862 institutions.

I emphasize these basic elements in our Extension delivery system because the maintenance and strengthening of these success factors directly influence the role of Cooperative Extension Services in fulfilling our responsibilities.

THE ROLE OF THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT IN ASSISTING RURAL AMERICA

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The Department of Housing and Urban Development is the principal Federal agency charged with assisting in the revitalization of America's urban communities. However, the Department has historically provided its program and service to all sizes of communities in both urban and rural America, including rural towns, villages, and counties. This is especially relevant in Federal Region IV comprising the eight Southeastern states with its large rural population. The problems of poverty, substandard housing, inadequate housing resources, poor infrastructure, and racial discrimination are not peculiar to urban America; such problems exist in all areas of the nation.

The theme of the conference is "research, and technology transfer." The Department has parallel interests in both urban and rural areas, especially as it affects housing, community development, and planning. The emphasis in the paper is on an important demonstration designed to transfer housing technology and how the newly enacted "1983 Housing and Urban-Rural Recovery Act" impacts rural America.

A tremendous problem in the country is the cost of housing. The average cost of a new single family detached house is approaching $80,000. Coupled with high interest rates, the consumer's carrying costs makes homeownership prohibitive for a majority of families. Since the median rural income is only approximately 80% of urban income, the problem is exacerbated for rural residents desiring to be homeowners.

The Administration and the Department of Housing and Urban Development began in 1982 a demonstration entitled the "Joint Venture for Affordable Housing." The goal of the demonstration is to show that substantial savings may be made in building decent livable housing by making changes in design features, local regulations, and subdivision requirements. At present, 30 communities are participating in the program including small rural communities such as Marion and Lonoke,

Arkansas. Although most of the demonstration activity is in urban areas, many of the cost saving features in construction techniques, infrastructure, local government processing, and financing are directly applicable to rural areas. In the demonstration sites to date, savings have been as much as 20% compared to previous methods to build essentially similar dwelling units. This is a significant reduction that, if applied on a nationwide scale, would literally make homeownership available to millions of additional households.

The demonstration is supported by many organizations who are also assisting in publishing the cost saving techniques.

The following are useful contacts for obtaining additional information on the demonstration:

National Association of Counties
Housing Cost Reduction Project
(A series of 21 bulletins on cost savings techniques)
Available for $6.00 from:

HUD User
P.O. Box 280
Germantown, MD 20874

"Streamlining Regulations"
(Aailable for $15.00 from the International City Management Association located at:

1120 G Street, N.W.
Washington, D.C. 20005

"Affordable Housing Progress"
(A monthly bulletin published by HUD
available at the "HUD User" address above).

Interested communities may also contact the HUD program manager for the Demonstration, Mr. Joseph Sherman (Director, Building Technology Division, Department of Housing and Urban Development, Washington, D.C. 20410.)

The Department is moving ahead in its efforts to assist rural America in using its programs. The President signed into law the "1983 Housing and Urban-Rural Recovery Act" on December 1. This is the first comprehensive HUD authorization since 1981. The new Act places into operation programs designed under the theme of the "New Federalism" which calls for greater State and local autonomy in their implementation. Perhaps the most pervasive impact in rural areas from the Community Development Block Grant (DCBG) State Small Cities programs which permits States the option of administering the CDBG program for communities under 50,000 population and counties with less than 200,000 population.

The conversion to State control began in 1981 and has proven to be very successful. The first two funding years clearly indicate that States

are responsibly using their powers to design effective programs that meet low and moderate income family needs. The record indicates that more communities are participating than under the HUD administered program and implementing more flexible programs that meet local needs. The 1983 Act signed by the President authorizes approximately $1 billion per year for FY 84, 85, and 86 for Small Cities. Mayors, county commissioners, councilpersons, and other elected officials are encouraged to maintain contact with the State agency designated by the Governor to administer the program and make use of this excellent resource.

The new Act authorizes several new exciting housing programs. The states will offer to rural communities a new rental rehabilitation grant program designed to improve multifamily housing for low and moderate income residents. It will be funded at $150 million per year in FY 84 and 85. Admittedly, the stock of rental multifamily housing is not large in rural areas, but there nevertheless exists hundreds of rural communities with substandard or deteoriating apartments of, say, six, eight, or ten units that could possibly benefit. The States will also offer a rental rehabilitation development program funded at $200 million in FY 84 and $115 million in FY 85. This will be a competitive program that will offer the prospect of constructing new rental housing for low and moderate income families. In addition, an Experimental Voucher program is funded to aid 15,000 families to demonstrate that subsidies tied to the consuming household are more efficient than subsidies for new construction or substantial rehabilitation. The Act also authorizes funds for Low Income Public Housing, Section 8 Existing, Section 202 Elderly/Handicapped Housing, and Section 8 Moderate Rehabilitation.

The Act also makes a vital change in the traditional FHA mortgage insurance program. The mortgage rates will be set by the market (i.e., the buyers, sellers, and lenders), not by administrative edict. This is the technology of the marketplace at its best serving all participants which will help streamline FHA processing. Tied with the emphasis on permitting lenders to process applications in lieu of FHA (the Direct Endorsement program), FHA will be more useful than ever in serving rural homeownership needs, especially among first time homeowners and others not well served by the conventional home lending industry.

Lastly, the Act reauthorizes the Urban Development Action Grant (UDAG) program for three more years at $440 million per year. Many rural communities have been profoundly impacted by UDAG funded economic development projects which generate new jobs and improve the local tax base. Rural communities are strongly encouraged to participate and to gain eligibility if they have not done so. Contact should be made with the local state HUD office for further assistance.

In conclusion, HUD desires and intends to work with rural communities to improve the lives of its citizens. A clear and strong partnership is needed with government at the local level and with the private sector to fully utilize the potential of HUD programs. The needs of rural America are great, but the potential exists to make great improvements.

THE EMERGENCY LAND FUND ROLE IN ASSISTING RURAL AMERICA

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In 1940, according to the agriculture census, there were 680,000 black farm operators who either owned or leased 12 million acres of land. The Census of Agriculture for 1974 revealed that the number of black farm operators had been reduced to a mere 53,919 with control or access to only 3.5 million acres. The current estimated annual loss of black farm land is now at 500,000 acres, the equivalent of 200 million dollars of real wealth.

It is important to note that the Census of Agriculture only includes those farm operators that reported at least $1,000 in gross annual sales. Accordingly, there is another group of black landowners that we know very little about because their land is not producing an income of at least $1,000, and apparently suffer from the government's census county policy of "out of sight, out of mind." The Emergency Land Fund (ELF) recently completed a study, contracted by the Farmers Home Administration, entitled "The Impact of Heir Property on Black Rural Land Tenure in the Southeastern Region of the United States." Through field research and the construction of a representative stratified sample, ELF determined in its study that blacks owned or leased, in 1974, 9.5 million acres with as many as 1.6 million individual black owners. If ELF is even close in its estimates, then over two-thirds of the black farm land base, some 6 million acres, receive no policy attention, and most certainly none of the program resources available through public supported agricultural institutions. ELF data on this six million acres of black owned land conclude that the land is often idle, with absentee ownership; in many cases, occupied by elderly individuals who are on welfare or some form of public assistance, who in many cases cannot read or write; encumbered with clouded titles, more regularly lost in tax, partition and foreclosure sales, and prey to land speculators.

Because of the change in definition of what constitutes a farm for census purposes, some 14% of all black farms, containing 8% of all reported land held by blacks was excluded. While the change may seem small, an interesting picture is obtained by looking at the percentage of those excluded operators reporting farming as their major occupation and those who reported no off-farm work. While no income data are available for this group, 'because of the exclusion factor,' those who regard themselves principally as farmers and those with no off-farm work may well be considered farmers in some respects, even if the enterprises are of a small scale. Equally important is the factor of racial discrimination in the off-farm employment market, thus underscoring

the importance of black landownership as a principal means of income.

According to the 1974 census, compared to the United States' average farm, the average black farmer is clearly economically worse off. The average black farm contains only 87 acres, one-fifth the size of all U.S. farms, and smaller than any other minority group (American Indian, Hispanics and Orientals). The average value of sales on black farms is only 20% of the U.S. average and less than half as large as the average sales of other minority groups.

Almost two-thirds of all black farms had sales under $2,500 and 94% had less than $20,000 of sales. Both of these percentages are higher than any other minority. Only black farmers are significantly older than the average U.S. farmer. In addition, not only is the percentage of blacks reporting debt lower than for any other minority, but only for blacks is the percentage less than the national average. These characteristics are reflected in the low farm-related incomes, less than half the national average and lower than other minorities except American Indians, where much higher off-farm income was reported.

In only two decades do black farmers appear better off. First, the value of land and building per acre is higher than the U.S. average and second among minorities to Orientals. Secondly, the net farm and farm-related income earned per dollar value of land and buildings is almost 15%, a return which is higher than the U.S. average of 9% and exceeded only by Orientals. While these statistics seem to indicate blacks fare well with the resources they have, it also suggests that their limited resources constitutes a major handicap to increased incomes.

The causes of black land loss are many and include voluntary sales, lack of farm purchase and operating capital, lack of land utilization information and technical assistance, and access to markets. There are also a host of legal, financial and discrimination problems that are contributing to the accelerating loss of black land. Often these problems involve both public and private lending institutions, courts, legal representation and land speculators. Additionally, black landowners generally lack knowledge and awareness of alternative sources of credit, particularly the various federal government loan and technical assistance programs and how to apply for them, and they usually are unable to discern and protect themselves against discriminating or illegal credit practices. Similarly, it has been revealed that black landowners lack functional knowledge about basic rights and opportunities which can help maximize earnings and promote the growth of small farm and other business opportunities.

Additionally, the average black farm operator has much lower total income and farm-related income than the average farmer. Moreover, a larger number of black operators had sales of less than $2,500 and were thus omitted from the income data. A larger percentage was affected by the 1974 change in the definition of a farm and are no longer even counted as farm operators.

Despite the low farm income and high concentration of black farms in the groups with sales less than $20,000, the typical black operator appears to be heavily dependent on farm and farm-related income. The proportion of black operators reporting off-farm income is lower than for all operators, and lower than expected. While 95% of all black farms in the South had sales of $20,000 or more, off-farm income represented only 1/3 of the total income for the average black operator, compared to 2/3 for all U.S. farms with sales under $20,000. In addition, southern blacks are more likely to report farming as their major occupation and less likely to report working as many as 100 days off the farm, which also suggests a greater dependence on farm income.

Compared with their southern counterparts, black farmers in the North Central more nearly resemble the typical profile of a small farmer: low farm income together with significant off-farm employment. Fewer blacks in the North Central report farming as their principal occupation and relatively more work 100 or more days off the farm. Blacks in the North Central have higher total incomes and higher farm and farm-related incomes than blacks in the South. Compared to the average farmer, however, blacks are equally disadvantaged in both the South and North Central regions.

In the South, the typical black farmer is engaged in different enterprises than the average farmer. Blacks are overall more dependent on crop sales and less dependent on livestock and poultry. In none of the states where poultry constitutes a significant fraction of gross sales for all farms was it important for blacks. Among crops, tobacco appears to be much more significant for blacks than all farms.

Blacks are more heavily concentrated in full owner and tenant categories than all farms, although the importance of tenant farming has declined dramatically. Fewer blacks are part owners, the category where the most successful farmers tend to be.

The average black farmer is older than the average farmer, is some states by as much as six years. One-third of all black operators are age 65 or older, compared with only 1/5 of all farmers. Considerably fewer blacks are in the younger age brackets.

The average black farm has a lower debt burden than the average farm. While age may be a factor, the debt is lower than expected even when age, tenure, and other characteristics are considered. Whether this reflects risk aversion, less access to credit, or limited expansion opportunities is not clear.

While each of the above are generally true for all areas where black farms exist in significant numbers—and especially in the South—there is some variation of the relative status of blacks across the ten southern states which contain over 90% of all black farms. Blacks are most disadvantaged in terms of relative farm incomes in Arkansas, Louisiana, South Carolina, Mississippi and Texas. Moreover, three of the states where blacks have a smaller relative disadvantage—Alabama, Tennessee and Virginia—are states where the average farm income for blacks is

very low in absolute terms.

Between 1969 and 1974, the number of black farms decreased by 40% while land in black farms in 1974 was 2½ million acres less than in 1969, a drop of 35%. Moreover, the number of black farms fell much faster than the number of all farms in each tenure class and in each sales class with sales under $10,000. Despite the loss of nearly half of all black farms with sales under $5,000, it does not appear that blacks have made much of an improvement in economic status relative to all farms. As measured by relative incomes, relative return to assets, and the index of integration, the relative status of black farms has made a marginal improvement in a few states, but has worsened in others.

The major explanation for the low farm income of black operators appears to be limited resources, principally land. The value of land and buildings per acre and the value of total assets per acre are both typically greater for black farms. By two measures of efficiency—net farm and farm-related income per acre and per dollar of assets—black farms are of equal or greater efficiency. However, overall as well as in each tenure class, the average size of black farms in acres is considerably smaller than for all farms. While black operators appear to do well with the resources they control, the small quantity of resources controlled places a serious upper limit on farm incomes.

While limited farm resources limit farm incomes, there is some reason to question the general availability or suitability of non-farm employment as an alternative. Explanations for the fact that blacks report less of farm work and less dependence on off-farm income could include personal preference for farm work and farm income; personal handicaps, such as age or lack of significant off-farm skills and experience; or the fact that much of the recent industrial growth in the non-metropolitan South has been outside the areas with heavy concentrations of blacks. The extent to which these possibilities explain the differences is not clear.

Finally, the relatively advanced age of black operators, the greater concentrations in full owner farms, and the small size of farm assets controlled by blacks are all obviously contributing factors to the lower incomes of black farms. Each of these also raise some serious questions about the long run survival rate of black farms and suggest the equity base of blacks in the rural South will likely continue to fall. However, each of these factors also raises many unanswered questions: why is the average age of black operators so high? Why are few young black farmers entering farming? What will happen to black owned land if the number of black farmers continues to fall? Given that size of farm was seen as the major limit on farm incomes, what is the relative importance of age, low wealth, and lack of access to land and credit in explaining the small size of black farms? Why are so many black farmers full owners when the trend is for expansion through renting or leasing of additional land?

These then are the problems that ELF, and now its sister organization the National Association of Landowners (NAL), have been addressing for over a decade. The demand for land is increasing, and in the Southeast

more agricultural land is being converted to other uses than in other regions. This is also a time of high unemployment, an energy crisis and overcrowded cities. It should be a time for a public response that advocates a balanced landownership structure for America, thus, ensuring individual freedom and the basis for self-reliant individuals and communities.

It can be stated without exaggeration that all successful farmers in America have become successful, in part, because of the policies and practices of the U.S. Government as they relate to agricultural concerns and the resources and programs that have flowed from the United States Department of Agriculture benefiting the American farmer.

The programs, benefits and resources afforded U.S. farmers by the government are immense and their availability and access plays no small role in the achievements of all successful farmers. Most farmers are reluctant to admit that the government plays such a large role in their success, as farmers, but to deny such is a refusal to face facts.

What are some of these facts? Consider just four: (1) The successful producers of certain commodities—rice, peanuts, cotton, wheat, feed, grains, tobacco, etc.—cannot deny the government's commodity programs (price supports, supply management, payments as income transfers and now PIK) favorably impact on their economic status. (2) The largest industry in the U.S. is the agricultural industry. The research for this industry is conducted for the most part by the U.S.D.A. and the land grant colleges. The benefits and findings of this massive research effort are made available to the U.S. farmer at virtually no cost. (3) Some of the wealthiest farmers in this nation are the dairy farmers. Yet, it is widely known that without government mandated price supports for dairy products, a large number of these "successful" dairy farmers would not be needed and (4) The Forestry programs, FmHA loan programs, even foreign policy programs (P.L. 480 "Food for Peace") are all designed and implemented to help the American farmer prosper and supposedly to maintain the family farm.

There are some other facts too, that relate to some of the effects of these programs:

It is a documented fact that most of the benefits of the commodity programs have gone to farm families who have incomes larger than the national average family income and almost none has gone to low-income farm families, particularly black ones, whether farm operators or hired farm workers.

The benefits and findings of most of the research are used for the most part by the most efficient and wealthiest of farmers (a class made wealthy by other government programs). It is these farmers who reap the initial rewards of governmental paid for research because it is they who implement it first. It should come as no small surprise that the information delivery system serves larger income farmers far better than it does smaller income ones.

The dairy price support program subsidizes inefficiency, keeps prices high for the consumer, causes more dairy producers to exist than are needed to meet demand, makes several dairy farmers wealthy at a terribly high cost to the American consumer and last, but not least, aids or assists no low-income farmers and at last count, only two black farmers.

In short, what these programs in reality do is to afford an opportunity for a subsidized existence in farming to established farmers or persons with substantial resources who want to become successful farmers. They do virtually nothing for low income farmers or black farmers.

And this brings us to the question at hand: Given the facts that: (1) success in agricultural production is to a great extent dependent on being a beneficiary of certain agricultural programs and that (2) most low income farm families do not benefit from agricultural programs and that (3) most black farm families are low income families; is it any wonder that black farmers, black farms and black owned land are rapidly declining?

Recommendations:

The Emergency Land Fund is proposing that the U.S.D.A. undertake a vigorous effort to assure that black and low income farmers benefit from agricultural policy and programs.

ELF long ago realized that the loan programs of the FmHA were not serving black farmers to the extent that black farmers needed serving. As a result, of this awareness, ELF created a revolving loan fund and has made loans to farmers that would not have been made by FmHA.

The problem with our revolving loan fund is that our resources are limited and, therefore, our effort minimal at best. But even more important, it is not our responsbility to meet the needs of a certain segment of the population because the government seemingly wants to neglect them. To do such can be construed as a tacit condoning of the behavior of the government. We want to expend our effort in helping the government make agricultural policy and program work for all its citizens.

The Emergency Land Fund is proposing a program in which it, in cooperation with the 1890 land-grant institutions, would:

—ascertain the current needs and problems of black farmers.
—design programs and develop projects that will meet those needs.
—create a delivery system that will assure that information related to these programs and projects is passed on to the farmers.

ELF and the land grant schools will conduct a series of four surveys. The purpose of the surveys is to determine what information needs black farmers have at present.

Awareness Of Current Programs

To adequately document what the existing situation is as regards agricultural programs and black farmers, the land-grant colleges and the Emergency Land Fund would conduct a survey in three counties served by each 1890 land-grant school.

The survey will consist of interviewing a representative sample of black farmers (landowners) in the three counties served by the school. Each Interviewer will have a list of all federal programs that have ever been used in the area. The persons being interviewed will then be asked:

—if they know of the program's existence;
—have they ever applied for it;
  a. if not, why not
  b. if so, what were the results;
—If they utilized the program, did it serve them well.

Forestry Production

In 1978, whites filed 9,684 requests and minorities filed 329 requests for grants under the Forestry Incentive Program (FIP). Eighty point six percent (80.6%) of the white requests and 72.9% of the minority requests were granted. When the Hispanic, American/Indian and Asian requests were deducted from the minority requests, blacks had less than 1% of the total requests approved.

ELF suggests that the following query be raised: Why is there not more black owned land in tree production? It is proposed that ELF and the 1890 Land Grant Colleges conduct a three county survey in each state where large holdings of black owned idle timber land exist. The survey will be for the purpose of ascertaining:

—The amount of black owned land in the counties.
—The number of acres suitable for tree production.
—The actual number of acres in tree production.
—The owner's awareness of the FIP.
—Whether or not the owner has ever considered tree production.
—Whether or not the owner needs assistance to get into tree production.

The survey will be a farm-to-farm canvas in each county and its results will be used as a basis for explaining why the black participation in forestry is as low as it is and what needs to be done to rectify the situation.

Livestock Production

In two states, ELF will conduct a survey in a five county area surrounding a 1890 institution. The survey will be designed such that ELF will be able to ascertain the number of head of beef cattle on each black landowner's farm where such beef cattle exist.

In addition, with a list of ten key questions (provided by the school) ELF will rate the management efficiency of the beef cattle operations.

The 1890 school will send a team of individuals to all those farms with six of more head, beginning with those farms that are the lowest on the management rating. An attempt will be made to explain recommended practices where they are not being utilized.

The 1890 school will also write up findings of the ELF study, indicating to what extent farmers fail to follow recommended procedures.

The 1890 school will monitor farms continuously and report periodi-

cally on progress made in convincing farmers to follow recommended practices.

ELF will conduct a survey in two counties in each 1890 school state. ELF will interview low income, marginal and small farmers in an attempt to determine what their most pressing informational needs are, as it relates to their agricultural enterprise, or farm land holdings.

ELF will indicate to the school the needs for each county. The school will design a workshop around that need and prepare relevant literature, working with the staff of ELF.

ELF will arrange conference and recruit farmers and landowners for a workshop in each county, for an introduction to the newly developed literature.

The information and data obtained from the above surveys will serve as a basis for ELF and the 1890 Land Grant Colleges to design and recommend agricultural programs that can best serve minority low income farmers and landowners.

Partition Sales

What has been the extent of black land loss due to partition sales in selected states during the period 1975-1980?

ELF will survey courthouse records in selected counties of certain states and (1) list all partition sales that have taken place during the above period, (2) indicate acreage involved, (3) identify the name and race of the owners whose property was sold, and (4) the name and race of the person(s) who purchased the land.

From the list of black persons who have lost their land via partition sales in the various counties, four black former sets of owners of heir property will be selected in each of the counties. The relevant 1890 school will prepare case studies on each of these families.

Ideally, two of the families will be families wherein a family member purchased the land at the partition sale and two will be families whose land was purchased by a non-family member.

The case studies will, among other elements, contain:

—A history of the black landownership prior to the partition sale (how it was obtained, when, by whom and the utilization thereof).
—A family tree of the heirs at the time of the partition sale and their whereabouts.
—Circumstances that gave rise to the partition sale.
—Feelings of heirs regarding sale before it took place.
—Feelings of heirs after partition sale took place.
—Present use of land.
—Estimated value of land at sale vs. partition sale price.

In the area surrounding the school, ELF will conduct a survey with the objective in mind of obtaining an inventory of heir property owned by blacks in each of the counties. The survey will reveal the amount of black owned heir property in the counties, its location, the heirs (a family tree), their domiciles and the land's present use.

From the listing of heir property in each county, one tract of land will be incorporated by the family members.

—The 1890 school will develop a farm plan for the land.
—The 1890 school, working with the family, will implement the farm plan through its extension program.
—The school's extension program will serve as a management consultant on a continuing basis.

Assuming that the above recommendations are implemented, the extension services of the 1890 schools involved will work with ELF on the design and implementation of a permanent delivery and information system that will be cooperatively maintained by the 1890 schools and ELF.

COMMENTS: ANALYSIS OF THE ROLE OF ASSISTING RURAL AMERICA

During "Setting the Stage" sessions, participants articulated how their agency or organization contributes to assisting rural America. The comments in Part II are critiques made during the general sessions and workshops focusing on the PAWC Theme.

For over 100 years the 1890 Land-Grant universities and Tuskegee Institute have fostered programs designed to assist their rural clientele, and expressed or implied in these papers are roles these universities continue to assume in community development.

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In commenting on the topic "The Role of Research in Assisting Rural People" it is convenient to view research from several perspectives as a strategy to assist rural people. Further, it is significant to look at the land-grant tripart function as the setting to articulate the role of research.

Resident instruction, agricultural extension and agricultural research are viewed as co-equal functions in the land grant concept and are inextricably tied together. What benefits rural people is related to how these three functions reinforce each other.

Research performs three roles: (1) provide a practical environment

for students who are the recipients of resident instruction; (2) provide an opportunity for scientists to become more competent in their respective disciplines; and (3) develop knowledge concerning solutions to problems. The totality of these three roles determines the impact of research on assisting rural people. My remarks will focus on research in assisting rural people at one of the 1890 Land-Grant Universities—Tuskegee Institute.

Tuskegee Institute history is "Rich" in programs designed to help people within the context of the land grant philosophy. We are aware of the tradition of academic excellence established by two great men and supported by many others over the past century. These two individuals were: Booker T. Washington, the first teacher and president of Tuskegee Institute, who pioneered in teaching and "outreach concept"; and George Washington Carver, the creator and first director of Tuskegee's Agricultural Experiment Station. Dr. Carver developed many products from the locally grown peanut. Both individuals inspired all of us in their life-style and leadership.

Tuskegee Institute has developed into an outstanding center of higher learning with recognized programs in teaching, extension, and research. The academic disciplines range from agriculture, engineering, veterinary medicine, to business. The Institute has become an important partner in the Federal and State Agricultural System. Scholars at the Institute are engaged in research and contribute to practical solution of problems for both rural and urban people. Likewise, the Human Resources Development Center is an established pioneer in carrying the services of the Institute to non-college attenders through conferences, workshops and one-on-one instruction.

Although Tuskegee was not one of the original 1890 Land-Grant institutions, it has acted and performed the land-grant functions. Further, its research and outreach activities have been recognized by scholars and leaders throughout the free world. Tuskegee Institute is a historical Black Land-Grant institution and it is in the context of the Land-Grant System that I will discuss the role of research in assisting rural people.

First, I will briefly review recent developments and trends in rural America with particular reference to the "South". Rural America has changed considerably over the last two decades to say nothing of the last four to five decades. Along with a changing rural society, "Rural Development" has become a pivotal policy issue. Rural development requires both micro and macro strategies which research must address.

As an Agricultural Economist, I view rural development as involving human and physical resources that impact upon the economic, political, educational, and social qualities of the community. Even though there are curricula for training in rural development, it does not in itself represent a structured discipline. Any attempt to structure a rural development discipline will require the use of existing sciences, technology, business and professional techniques. A rural development discipline should stand as a series of comprehensive (multidisciplinary) experiences designed to improve the income, health, education and other community services of people. It must involve the responsible use of resources to improve the quality of life of people in rural areas. It is significant to note that the responsibility of achieving these goals is a function of national, state and local governement policies. Likewise, the responsibility must reflect the private interaction of the business sector and the efforts of individuals acting as producers and consumers in the marketplace. Ladies and gentlemen, it is the role of research to provide the necessary data to articulate these responsibilities. In recent years, the growing concern for rural development in America as well as the developing nations has caused many people to become aware of the need for new development strategies — a role for research to develop new strategies.

Since the late sixties, the recognition of the problem of rural poverty and the need for new approaches has become apparent. This is exemplified in the passage of the Public Works and Economic Development Act of 1965 and the Rural Development Policy Act of 1980. During the same time, scientists and policymakers began to look for new strategies to resolve emerging problems in rural areas.

Some of the areas where research is still needed are: (1) Impact of Migration: During the 70's rural areas experienced a growth in population. Currently over 60-70 million of the U.S. population live in nonmetropolitan areas. The "reverse migration" trend (from urban to rural) is not universal with respect to geographical areas. For example, the Great Plains, the Corn Belt and the Mississippi Delta experienced a decline in rural population during the 70's. Study on the impact of such changes on economic viability is very much needed. (2) Improvement of Income and Employment: Over the past decade, income in rural areas has shown some improvement. Limited study findings show that rural population was less poor in the 70's than in the 60's. For example, in 1969 about 45 percent of the Nation's poor was rural; but by 1977, this figure had declined to 40 percent. The rural poor differs significantly from the urban poor. By labor force characteristics, the urban poor are more

frequently unemployed while the rural poor are working but underemployed. We need to know more about the rural poor, their jobs and their incomes. (3) Educational Improvement: The formal educational attainment of rural people is less than that of their urban counterpart. About 50 percent of rural people age 25 and over had completed high school in 1975; the comparable figures for urban males and urban females were 68 and 65 percent respectively. When viewed racially, only 25 percent of Blacks and Hispanics for the comparable age groups had finished high school in rural areas. (4) Improvement in Living Standard: Despite improvements in interior plumbing, today housing is of lower quality in rural areas than in urban areas; and (5) Improvements in Community Services: In most rural areas, government expenditures on essential services (transportation, health and sewage) continue to show disparity between the rural and urban sectors. Given the above issues and trends in Rural America, concern must be focused on strategies to be employed for improvement, and the kind of research necessary to develop the strategies.

Rural America is extremely diverse and strategies to improve rural conditions must be targeted where the research is most needed. For example, rural research should be directed towards the "pockets of poverty" among the "poor" and the improvement of delivery systems should focus on the public and private programs accessible to rural people. Naturally, these approaches will require planning and management capabilities on the part of local communities. Some relevant research is currently being conducted on some of these rural problems by the 1890 Land-Grant Universities and Tuskegee Institute. However, to accelerate the research process will require financial assistance. More cooperation and consensus concerning the solutions to "development constraints" is necessary among public and private institutions. In addition, the development of social and anthropological factors, as opposed to scientific research in the traditional sense, must be pursued. The Land-Grant system has made the case for applied research to the problems of rural areas as opposed to "pure" scientific and quantitative research. This verdict is not to de-emphasize or criticize quality scientific research.

Finally, ladies and gentlemen, research efforts in the 80's must be directed to acquiring more insights and perceptions on the elimination of poverty in rural areas of America. I am convinced that the role of research in assisting rural people can best be articulated through the Land-Grant system in general and the 1890 Institutions and Tuskegee Institute in particular.

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Rural communities throughout America face increasing challenges in improving the economic well-being of residents. Specific concerns must focus on strategies to alleviate the problems associated with low-income, elderly, minority, and disadvantaged people. It is becoming more difficult for rural communities to provide essential services, conserve natural resources and maintain economic viability with the present tax base.

The nature of the rural population is changing. For example, nine out of ten rural residents are non-farmers residing in the open country and small rural communities. During the last decade, rural and small communities attracted as many people as did urban areas. Study findings have shown that people move to rural areas to share in the quality of life rather than for high real income.

The small farmer is an integral part of the rural community, but is experiencing difficulties associated with technology and land costs. Recently, the Secretary of Agriculture, John R. Block, identified six objectives that will correct some of these inequities. They are:

—Strengthen the role of state and local government in rural development.
—Find new ways to finance rural development.
—Increase private sector involvement in rural development.
—Streamline federal regulations, program procedures, and paperwork requirements that impact rural development.
—Find new opportunities for voluntarism in rural development; and
—Improve rural leaders access to needed rural development knowledge and expertise located in the public and private sectors.

The primary role of research in assisting rural America is to systematically search for ways to make the rural areas a better place to live and work. Research provides the information and knowledge base necessary to attain these goals. In addition, research assists in the interpretation and application of information to address solutions to other practical problems facing rural people.

The expanding small-farm research within the land-grant system has resulted in an increase in funds and commitment to small farm operations. Despite the apparent success of commercial agriculture in the United States, problems related to small volume of farm produce confront most small part-time farmers today and the solution will require short- and long-range approaches. Today, small farm research is focused

on farm management, marketing and crop and animal production. Likewise, research on rural development is addressing such issues as:

—Ways to increase income of farm and non-farm rural people.
—Conserving natural resources and the environment of rural America.
—Providing essential community services to rural residents.
—Logistics of institution building in rural America.

Finally, research must contribute to the development of a program strategy that will be based on needs of the people to be served. The papers presented in Part I of the proceedings offer many insights for guiding short- and long-range solutions to increasing the quality of life for rural people. It is our hope that the various agencies having responsibilities for assisting rural people will utilize the information incorporated in the series of papers.

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We are often told by the true-blue educator, the intelligentsia, that for education to take place there must be a noticeable change in the learner's behavior. Such change may manifest itself in knowledge or ability to perform certain functions. Unless changes are observable, no education has occurred.

Who constitutes "rural people?" It is essential that we define what we have in mind in this regard if we are to do justice to the task at hand—that is critique the Role of Education in Assisting Rural People. What are some of the social characteristics attributable to "rural people," especially in the context of their existence within the highly industrialized society in which we live?

Dr. Robin Williams, Jr. in his book *Our Changing Rural Society*, states that "the social system of the United States emerged as a product of the great period of European expansion and population growth. From 1790 to 1960, the land area of this country expanded from less than 900 thousand square miles to nearly 3 million square miles. The population grew from less than 4 million to about 180 million." Today, there are over 230 million people residing in the beautiful landscape known as America.

Sociologists are likely to argue that rural America is some independent system; and even though disagreement exists as to where the rural sector begins and the urban ends, it does not necessarily follow that we are unable to distinguish between "what is urban and what is rural."

Over the years urban and rural America has shown distinct social changes. We have moved from a rather simple folk society to an industrial society with technology being the centerpiece that influences man's relationship to his fellowman.

Low density population has been noted as one indicator for defining a rural area. Larson and Rogers, in their description of the rural society, pointed out that as America develops, the following changes occur:

—More developed technology and division of labor.
—Higher levels of literacy and education.
—Cosmopolitan rather than localistic social relationships, with a breakdown of kinship relations and locality ties.
—Less primary and more secondary social relationships.
—Greater emphasis upon economic rationality.
—Increase in empathy or open-mindedness toward new roles.

Larson and Rogers further stated that the application of the process described above will lead to the following changes:

—Increase in farm productivity per man and the decline in the number of farm people.
—Closer linkage of the farm and nonfarm sectors.
—Farm production specialized.
—Rural-urban values will become similar as America moves in the direction of a mass society.
—Rural people will increasingly become more cosmopolitan in their social relationships due to improved mass communications, transportation, and the realignment of local groups.
—There will be a trend toward a centralization of decision-making in rural public policy and in agribusiness firms.
—Changes in rural and social organization will be in the direction of a primary relationship (such as in locality and kinship groups) and an increase in the importance of secondary relationships (such as special interest formal organizations, government agencies, and business firms).

Larson and Rogers took the position that in spite of the significance of rural social changes, there are stabilizing factors in rural society that will prevent complete social re-organization from occurring. The stabilizing point made by Larson and Rogers supports the belief of individuals who think in terms of a rural and an urban America both having unique qualities. If we accept the argument that today there is not a purely urban nor a rural sector, I believe we have some idea of the nature of the social environment where education must play a significant role. But before we focus on rural America, just a comment regarding **Education For the Masses or Rural/Urban America.**

Education in America has taken on many forms, including apprenticeships, town meetings, formation of agricultural societies, churches, fraternal orders, private vocational schools, common schools, communi-

ty/technical schools and universities. Inherent in the latter is the land-grant colleges and universities whose programs focus on formal education, outreach, and research.

As one reflects on history, it seems natural that the first educational priority of the colonists must have been vocational training. Malcolm S. Knowles, in his book *The Adult Education Movement in the United States*, cites Seybolt as stating that "the earliest form of vocational education in Colonial America was provided by the apprenticeship system." Similarly, the town meetings essentially served as a training ground in the art of self-government for the colonists. The country meetings were viewed as a problem-solving decision-making instrument and not an educational institution.

The emergence of the agricultural societies is thought to have gotten its root in Benjamin Franklin's proposals in 1749 for an academy in Philadelphia. Mr. Franklin suggested that gardening, planting, grafting and innoculation be taught and practiced, and that rural people visit successful farmers to observe good farming practices.

During the formative years of education for the masses, it was generally recognized that the **Church** was the single most universal instrument for intellectual activity. In addition, the Church was the scene of midweek lectures on a wide variety of subjects by both clergy and laymen. The Church in the rural area remains the viable force in the pursuit of education by parishioners.

The **private schools** were places where lectures were conducted in the residences of the "master teacher." These schools served as the chief source of vocational education for adults and were the predecessors of trade schools and business colleges.

The foregoing discussion serves to draw attention to the role these forms of education entities played in assisting rural America during its beginning years of our history and the techniques pursued by Booker T. Washington and George Washington Carver complement the development process in American higher education.

The land-grant college/university which had its beginning during the mid to late 1800's (1862 and 1890) emerged and grew as one of the most formative educational experiments for assisting rural America. The Cooperative Extension arm of these universities extended the instruction research and outreach functions of the Land-Grant system to every part of society—rural and urban. Over the years the techniques employed at these universities mirror the willingness and the ability of the personnel to work with the family members on a one-on-one basis. The **show and tell** method included some of the earlier apprenticeship techniques of learning. The experience of teaching people in their own environs (their homes, backyards, field, etc.) helped to raise the standards of life for many people who were outside the economic mainstream. Drawing upon the traditional methods of involving people in the learning experiences that affect their lives, the Cooperative Extension method survived the so-called "generation gap" and helped make the American living stand-

ard second to none in the world.

The foregoing discussion addresses a number of factors, past as well as present, which impact the role of education in assisting rural people. The challenge which lies ahead is just as important to survival as the early settlers faced in this country. We have faced this kind of challenge before, and I am sure we will succeed because we want to utilize our expertise to help people help themselves.

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In making decisions about how to focus research efforts to the needs of clientele, or how to do research effectively, attention often turns first to applied research and the focus is solution to problems which, if solved, contribute to an improved quality of life. Attention also turns to identification of problems, appropriate/intended clientele and processes for problem amelioration.

My comments on how to effectively carry out the research process so that the needs of clients are addressed will focus primarily on research within the land-grant complex, with special emphasis on the 1890 Land-Grant Universities and Tuskegee Institute. I will share my personal insights regarding the steps that should be involved in structuring rural development efforts to the needs of different client populations. The clients may be individuals and families living in rural areas, service agencies, program developers, or policy makers whose goals also include those of bringing about improvements in quality of life. I am focusing my remarks on rural development because historically the mission of the land-grant complex has been to serve the needs of rural people, and because sizeable proportions of Hatch funds (6.5 million dollars in FY '81) and of USDA research support to 1890 Institutions (3.6 million dollars in FY '80) were devoted to rural development research (Brown, 1982: 275).

Some of my comments may sound familiar to you. Last year at a conference sponsored by the Office of Rural Development Policy, the Task Force on Historically Black Colleges and Universities (USDA) and the Tuskegee Institute Human Resources Development Center, I gave a presentation entitled "An Integrated Approach to Rural Development." At that meeting, I shared my perceptions on procedures for effectively carrying out the research mission in the land-grant complex. The effective performance of rural development research is a continuing concern

of mine, and I am constantly evaluating and reevaluating how we can become better at it. But my basic notions about how to effectively carry out the research process have not changed significantly since that meeting in September of last year. Therefore, my comments today combine thoughts on integrating the research process with insights on focusing (rural development) research to the needs of clientele.

Focusing Rural Development Research to the Needs of Clients

Rural development research, as defined by Copp (1972:519), is a process, through collective efforts, aimed at improving the well-being and self-realization of people living outside urbanized areas. This definition incorporates ideals about processes and goals associated with bringing about positive changes which contribute to improvements in human development and in social, economic, political and physical environments. Also implied in the definition are ideas about "what ought to be" and the recognition that progress toward the (policy) goals of improvements in well-being and self-realization can be measured and alternative paths identified when goals are not met (Brown, 1982).

Progress toward rural development is no easy matter, however. It involves several steps, all of which must be pursued with the same degree of diligence. Progress toward effective rural development research which focuses on the needs of clientele involves (1) learning the communities and people to be served; i.e., developing a good data base, (2) problem identification and amelioration, and (3) follow-up and reevaluation. It is important that individuals and families be involved in each of these steps. This is not to suggest that client populations (can) control decision-making processes, but it is important that efforts to develop research programs which are focused to the needs of clientele involve potential clients.

The first step of learning the communities and the people to be served is a must. Manifestations of similar problems such as rural proverty may require different strategies for amelioration, given different socio-demographic settings. Learning the communities and the people involves acquiring adequate information on problems and needs as perceived by residents of local communities as well as by members of the scientific community. In addition to information on social and economic problems, this data base should also provide information on community services and facilities, social processes and the organizational and leadership structures (to learn how decisions are made and change effected). Such a data base is necessary, not only as a basis for problem-solving efforts which may be undertaken by researchers in land-grant institutions, but also to fulfill the mission of generating information as well as technical knowledge that can be used by the Cooperative Extension Service and other action-oriented organizations, program developers and policy makers.

Effective rural development research which is focused on the needs of clientele involves potential clientele in the problem identification and

problem amelioration processes. It is process oriented toward helping people to help themselves. Bringing about improvements in factors which affect quality of life involves change, and it has been shown through numerous unsuccessful efforts that human beings are not so easily changed, even when the changes have great potential for bringing about significant improvements in levels of well-being. The reluctance of many farmers to adopt technological innovations attests to this fact.

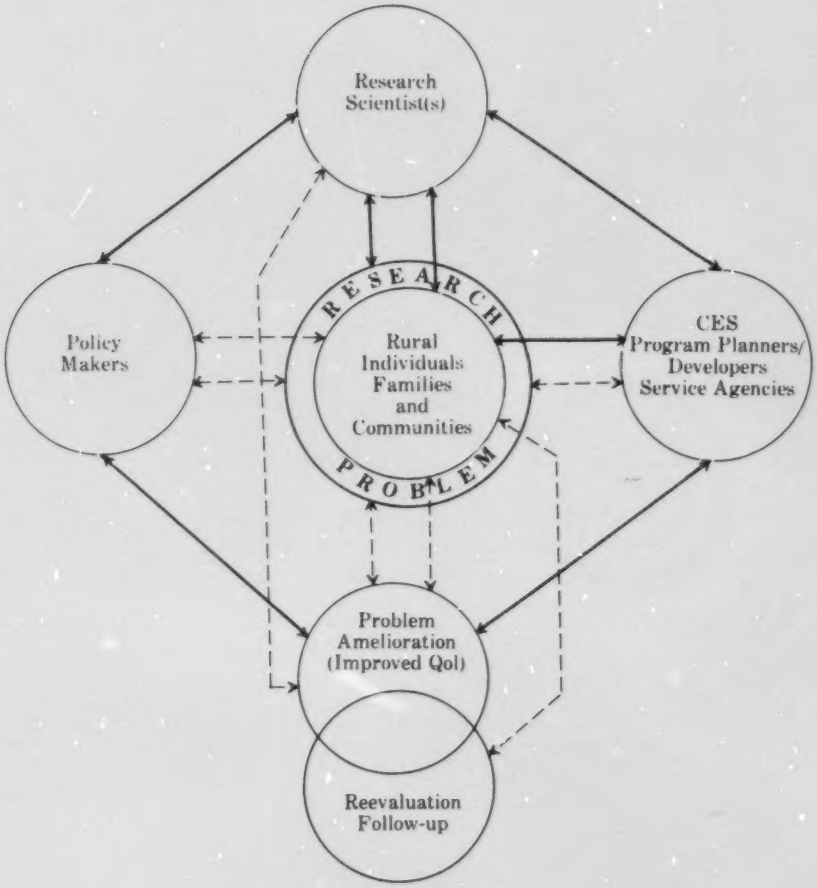
It has also been documented that the best way to effect change is to involve beneficiaries of the change in the processes. Within the context of the research mission of the land-grant complex, this means helping people to help themselves—helping them not only to identify their problems and needs, but helping them to acquire and mobilize resources to deal with problems and needs they have identified as important. Helping people to help themselves means involving those affected in identifying problems, setting priorities and planning activities to bring about changes in their social, economic, political and physical environments.

This approach to development research does not require delineation of specific projects at the onset, although projects related to industrial development, improved educational, medical and recreational facilities, reduction of poverty or increased productivity and economic viability of small farms may yield important results which contribute to the goal of improved quality of life. Instead, attention focuses initially on facilitating the organization and problem-solving capacity of local rural communities. This problem-solving capacity is then directed toward bringing about positive changes in at least three (3) areas: (1) individual maintenance—helping individuals and families to meet current needs for basic necessities such as food, clothing, and shelter; (2) individual capacity—helping individuals and families to improve their long-term ability to sustain themselves through the provision of education, health care, mental health programs, family counseling; and (3) community service programming—providing new or extended programs and services to groups of individuals and families with maintenance and capacity needs, rather than directing help to individuals or individual families (Nix, 1972).

Efforts to bring about change at these levels will, in turn, result in specific problem-solving activities or projects in the following areas: (1) human development, (2) economic development, (3) environmental enhancement or preservation and (4) improvements in public facilities (Carlson, 1981). But again, the delineation of specific project activities is secondary. The emphasis is upon developing the mechanisms for determining needs and goals and upon developing problem-solving capabilities. Specific research programs which may be initiated to accomplish these goals often vary according to the specific needs of client groups.

The final step in effectively focusing research to the needs of clientele involves follow-up and reevaluation. Ongoing evaluation is an essential part of rural development research. All participants, especially research scientists, should establish mechanisms for assessing the degree to which

steady progress is made toward amelioration of identified problems and needs. By doing so, the likelihood is diminished of committing substantial efforts and resources to programs and activities which are not effective in bringing about improvements in quality of life. Ongoing evaluation also facilitates the process of adjusting programs and activities to the changing and emerging needs of rural populations. These three steps of learning the people and communities to be served, client input in problem identification and amelioration and follow-up and evaluation are essential if research is to be focused to the needs of clients. Effective rural development research, as stated earlier, is a process involving collective efforts, aimed at improving well-being and quality of life. The relationships among the key elements in this process are presented below.



The process of focusing research to the needs of clients is the result of collective efforts which involve (1) the research scientist(s), (2) beneficiaries and (3) users of information generated by the scientists. Beneficiaries include rural individuals, families and communities; users include the Cooperative Extension Service, program planners and developers, service agencies and policy makers. At the heart of the process, however, are the problems and needs of the individuals, families and communities to be served.

The research scientist(s) may serve either an initiator or facilitator in the process. As initiator, the scientist looks for a research problem of social or scientific significance, such as rural crime or the decline in the black farm population. As facilitator, the scientist may assist in the study of a problem which has been identified by others within or outside the research community. In either case, the major task of the scientist is that of generating information and technical expertise to be used by others who will act upon the problem.

There are direct linkages between the research scientist and the problems and needs of rural individuals, families and communities. This link exists primarily through survey research methods which provide opportunities for the scientist to gain first-hand knowledge of perceived problems and needs.

Opportunities also exist for direct linkage between the research scientist and users of information and technical knowledge generated by the scientist. Lines of communication and reciprocal relationships should be established and maintained among scientists, the Cooperative Extension Service, program planners and developers, service agencies and policy makers. These users of information and technical knowledge initiate the programs and policies which ultimately impact upon the quality of life.

Follow-up and evaluation are part of the problem amelioration to improve quality of life. All of the participants—research scientist(s), beneficiaries and users—share either directly or indirectly in this process.

In summary, success in focusing research to the needs of clients requires the collective efforts of research scientists and the beneficiaries and users of information and technical knowledge generated through the research effort — a process that begins with the selection of research problems. Rural development research which is effectively focused to the needs of clients also requires a commitment by the scientist to human development and to the goal of improved quality of life for rural individuals, families and communities. The papers presented at the 1983 PAWC and Workshop dialogues served to focus attention on the role of agencies in assisting rural America.

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Throughout history, education has always been one of man's most important activities. In a democracy, education is everyone's business. We first become interested in education as learners and as students in school. Later, as citizens, we pay taxes to help operate public schools. The kind of education everyone receives is as important to each of us as is our own education. This is because the quality of a community or nation depends largely upon the kind of education all its citizens receive. Therefore, a community of well educated people is a wholesome place to live.

Education includes all the ways in which one person deliberately tries to influence the behavior of another. Behavior may include knowledge, skills, habits, values and attitudes. When a person's behavior changes, he has learned something. There is, however, no absolute agreement among psychologists on the nature of human learning, but certain ideas are generally accepted. A person learns better when he understands the reasons for learning something, when he is motivated to learn, and when he wants to achieve some goal that is important to him. This is a very important point to remember in every aspect of the educational process and most especially where rural adults are concerned. Knowledge, learning, information and skilled intelligence are the new raw materials of international commerce and are today spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers and blue jeans did earlier. If only to keep and improve on the slim competitive edge we still retain in world markets, we must dedicate ourselves to the reform of our educational system for the benefit of al old and young alike, affluent and poor, majority and minority. Learning is the indispensable investment required for success in the "Information Age" we are entering.

President Reagan noted the central importance of education in American life when he said, "certainly there are few areas of American life as important to our society, to our people, and to our families as our schools and colleges." For our country to function, citizens must be able to reach some common understandings on complex issues, often on short notice and on the basis of conflicting or incomplete evidence. Education helps form these common understandings, a point made long ago by Thomas Jefferson when he said: "I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to inform their discretion. Our destiny can no longer be assured by an abundance of natural resources and inexhaustable human enthusiasm, and by our relative isolation from the malignant problems of older civilizations."

We live in a world of determined, well-educated, and strongly moti-

vated competitors. We compete with them for international standing and markets, not only with products but also with the ideas of our laboratories and neighborhood workshops. America's position in the world may have once been reasonably secure with only a few exceptionally well trained men and women. However, that's not true any longer. The people of the United States need to know that individuals in our society who do not possess the skill, literacy and training essential to this new era will be effectively disenfranchised, not simply from the material rewards that accompany competent performance, but also from the chance to participate fully in our national life. We cannot rest easy when some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing and comprehension, and about 13 percent of all 17 year olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.

These deficiencies come at a time when the demand for highly skilled workers in new fields is accelerating rapidly. For example: computers and computer-controlled equipment are penetrating every segment of our lifes, homes, offices, factories. Technology is radically transforming a host of other occupations such as health care, energy production, food production and processing, to name a few. With these changes at hand a high level of shared education is essential to a free democratic society.

Even though change within higher education has been slow, the changing role of education within the broader society has occurred very rapidly. Educators have been asked to forgo the traditional practice of selecting students who fit into existing colleges and to take on a more difficult task of creating colleges that fit the needs of students. This fact represents a fundamental change in the purposes of higher education.

When technology was young and educational resources were scarce, it seemed reasonable to use limited resources to educate those who had already demonstrated their intellectual potential. The expectation was that those selected would use their training and knowledge to raise the standard of living for everyone. By and large, we have not been disappointed. A relatively small number of well educated scientists and businessmen have created a seemingly unending supply of comforts and luxuries of technology.

The problem we face today lies not so much in further discovery or the production of material goods as in better distribution systems, broader-based knowledge and greater concern for all citizens and especially those who inhabit the rural areas.

The Land-Grant Institutions were created in the last century to accommodate the rising aspirations of children, of farmers and factory workers. Community colleges were established in this century to extend college opportunities to still broader segments of the population. Today's nontraditional education is just another frontier of the expansionist movement. It promises to complete the task of providing education for every citizen who seeks it.

It is now apparent that higher education attempts to serve the full spectrum of learners—rich and poor, black and white, male and female, old and young. It is also quite clear that students can be campus residents, commuters, or those who never set foot on the physical entity known as the "campus." The Tuskegee Institute Human Resources Center is an example of a strategy for expanding the geographical area of a campus. The ever-changing society including population shifts and technological advancements, education and educators must continue to expand their roles in improving living conditions in the rural sector. An effective and continuous dialogue between our partners in education must be established when their needs are being addressed. We as educators are obligated professionally to provide relevant information and advice to rural residents. We should be ever mindful of the fact that motivation promotes learning, and individuals selectively learn what is deemed most useful to them. Our success will be greatly enhanced by their input in program planning and decision-making because support will be given with their best interest at heart. The State and Land-Grant Universities have a responsibility for promoting freedom of inquiry, freedom in the discussion of ideas and freedom in the dissemination of truth. These institutions also have an equal duty in relation to keeping our nation an open society and a mobile society.

When we focus our attention directly on rural America, I am reminded of an airline pilot who announced to his passengers that he had some good news and bad news. First, the bad news—we are lost! Now for the good news, we are making good time! Technological developments in agriculture have increased the nation's agricultural output which now represents about 20 percent of gross national product, (GNP) that's the good news—now, the bad news—these developments have displaced many farm and farm related workers. Many of these displaced workers have inadequate education and training for nonagricultural jobs.

The best educated segment of the population tends to move to urban areas for employment, leaving behind many who are unable to compete for agribusiness or rural industrial jobs. These are the ones that need the most assistance. Ralph Emerson once said, "Your actions speak so loud, I can't hear a word you say." We must not let this be true in our professional relationship with rural America. We need to communicate fully through open dialogue for program planning (conferences, workshops, demonstrations) that will furnish needed information for economic success and at the same time stimulate actions that will ultimately lead to increased standards of living for rural dwellers. Let us in education join hands with our counterparts in research, agricultural extension, outreach, appropriate State and governmental agencies to insure that there is no breakdown in the delivery of educational and technical information to rural America. The theme of the 1983 PAWC is a giant step forward and I join with others in commending the conference organizers for a useful and timely meeting.

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It is indeed a pleasure and a privilege for me to have an opportunity to make a few remarks about "The Role of Technology Transfer In Assisting Rural People." It is also a pleasure for me to bring you greetings, and I do so, from Alcorn State University, its President, Dr. Walter Washington, and the entire university family. If you are pleased with my performance as a panelist, tell Dr. Washington, if not, tell me and I will tell him you were pleased.

Now to the task at hand. What are we referring to when we speak of technology transfer? I will attempt to provide an answer to this question and to make some comments about the role technology transfer has played and is still playing in assisting rural people. And I will also provide some examples of the effect that technology transfer has had on rural people.

What is Technology Transfer? This is not an easy term or phrase to define. I believe technology transfer can be defined as applied science or the application of science and of technical advances in industry, manufacturing, commerce, and the arts and the means by which material things are produced, then transferred from one person, place, or situation to another. In simple terms, technology transfer is transmitting technical know-how from one generation to another generation (or within generations). This includes transfers within culture and between cultures; transfers from one country to another; transfers from one industry to another; and so forth.

Historically, we know that technology or technology transfer, if I may, moved from the **Stone Ages**, where we got fabricating of stone implements; to the **Rise of Cities**, where we got metal and iron workings, the horse and the wheel, writing, and the use of rivers; to the **Greek and Roman Civilizations**, where we got machines, architecture, and written records; to the **Early Middle Ages**, where we got agriculture, and the influence of the Far East (China's manufacturing of porcelain to the making of iron suspension bridges); to the **Late Middle Ages**, where we got printing, ceramics, and social changes; to the **Renaissance and Baroque Periods**, where we got canals, introduction of coke, advanced agriculture, and science and technology; to the **Industrial Revolution in Britain**, where we got textiles, development of the steam engine, development of the locomotive, development of the steamboat, machine tools, structional uses of iron, the chemical industry, and social effects (population growth, new communities, pressures on local governments, etc.); to the **Nineteenth Century**, where we got railroads, steel, iron and steel in architecture, telegraph, telephone and phonograph, elevators, cement, farming, food industries, electricity, photography, organic chemicals, and internal-combustion engine; and to the **Twentieth Century**, where

we got electronic communications, computers, airplanes, modern agriculture, and advancements in all sorts of materials and machines.

Today, this historical transfer of technology and its role in assisting rural people is reflected in tractors, combines, cornpickers, running water (hot and cold), refrigerators, dishwashers, automatic washers and dryers, and so forth. It is embodied in hybrid seed corn, improved corn varieties, pesticides, herbicides, commercial fertilizer, contour plowing, automatic feeders and waterers, and rural electrification. Technology transfer is in the workshop, the chemistry laboratory, the barn, the field, the home, the school, the church, the office, it is all around us. Its objective is to provide greater output from a given amount of productive resources, thereby improving the quality of life for rural people. Thus, technology transfer is vital to the economizing and/or maximizing process.

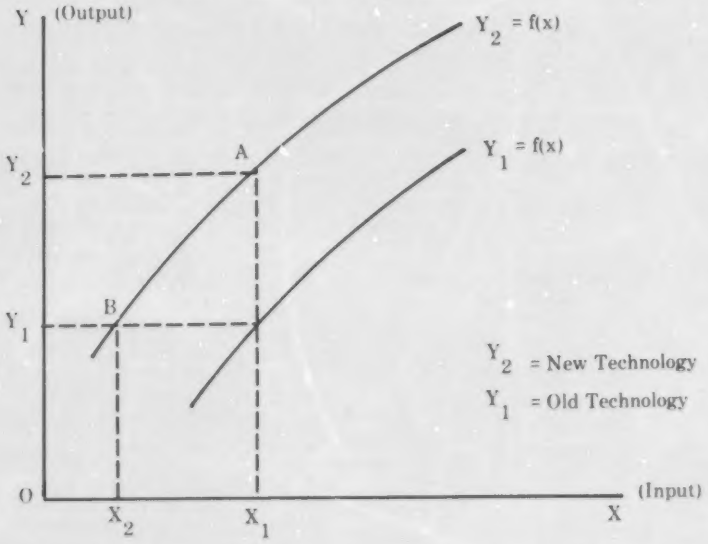
With this in mind, let me turn to some specific examples of The Role of Technology Transfer In Assisting Rural People and the effect of each. (See Diagram 1)

(1) Technology transfer has led to increased output per unit of input for rural people. This can be illustrated by a shift in the production function and/or the supply curve. When this happens, there are three direct benefits: (a) More output can be obtained from the same amount of resources, points A in graphs. (b) The same amount of output from a smaller amount of resources, points B in graphs. (c) Some combination of more output and fewer resources between points A and B in the graphs.

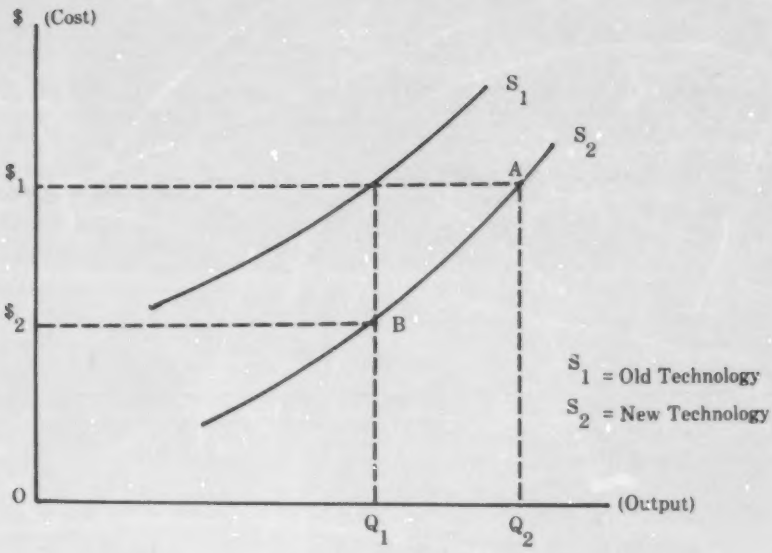
In addition to these direct benefits, there are other benefits to society and/or rural people (primarily farmers):

Diagram 1: Effects of Technology Transfer On

A. Production Function



B. Supply Function



(a) More resources, especially land and labor, can be made available to be used in the nonfarming sectors of the economy. This has led to off-farm employment for farmers and members of their families, migration of people and the establishment of satellite cities and urban areas, and improvements in standards and quality of living.

(b) More leisure time for farmers and members of their families to be used for whatever they see fit.

All of these benefits are made possible because more industrial jobs are now located in rural areas. These industries moved to rural areas because of the problems of congestion, crime and pollution in large cities, the development of better highways, and perhaps other factors such as more economical land and lower tax rates. All of these factors have led industry to locate on interstate highways and other major highways in rural areas. This simply means that rural people now have employment opportunities other than those related to farming.

(2) Technology transfer has led to improved public services for rural people. As industries locate in rural areas, they bring with them improvements in and develoments of highways, airports, water systems, sewer and drainage systems, health care, schools, recreation, and so forth. All of these improvements and developments can not be attributed directly or indirectly to technology transfer. For example, improvements in farm machinery and equipment technology and transfer thereof have led to improved roads and bridges in rural areas. Obviously, these roads

and bridges have reduced the rate of wear and tear on motor vehicles owned and operated by rural people, thus reducing expenses and therefore a "penny saved is a penny earned."

(3) Technology transfer has led to increased returns to productive resources. Using farming as a means to illustrate this, we know that changes in American agriculture have involved substituting capital, and more specifically, technology for labor. New technologies created by both public and private research have been made available to and adopted by farm operators. These technologies have resulted in increased output per worker, have facilitated growth in farm size, and have increased the returns to productive resources.

An example of the effect that technology transfer has had on returns from productive resources is found in a study of the "Potential for Increased Income or Small Farms in Appalachian Kentucky" by Stewart, Hall, and Smith. Specifically, this study shows the effects that changes in capital and technology would have on net farm income and enterprise mix (see Table 1). From the Observed Enterprise Mix, net farm income was $2,662 and total nonland capital was $1,361. Using the Old Technology and unlimited capital, net farm income could be increased by $1,900 (71.4 percent), with a nonland capital use of $3,148. Using the Old Technology and a $1,000 limit on nonland capital, net farm income could be increased from $2,662 to $3,944 (48 percent). And using the Old Technology and a $3,000 limit in nonland capital, net farm income increased by 70.6 percent (from $2,662 to $4,542).

As for the New Technology and changes in capital, net farm income increased by more than 100 percent in each case. With unlimited capital and New Technology, net farm income increased from $2,662 to $6,571, a 146.8 percent increase. To get this increase, $17,384 of nonland capital was required. When nonland capital was limited to $1,000, the use of the New Technology resulted in a net farm income of $5,493, a 106.4 percent increase. And when the New Technology was used with $3,000 of nonland capital, net farm income increased by 133.1 percent (from $2,662 to $6,206).

In each of the above mentioned cases, the enterprise mix changed. Further, in comparing the Old Technology with the New Technology, net farm income was higher for each level of capital for the New Technology than for the Old Technology. With unlimited capital, net farm income using New Technology was 44 percent higher than that for Old Technology. When capital was limited to $1,000, net farm income was 38 percent higher for New Technology than for Old Technology. And when capital was limited to $3,000, the net farm income received from the New Technology was 37 percent higher than that received when the Old Technology was used.

Up to this point, I have attempted to show that technology transfer has had a positive effect or impact on rural people. But there is a negative side. Much of the technology transferred to or imposed on rural people,

Table 1: Net Income Enterprise Mixes, and Levels of Capital Utilizing Old and New Technologies, Appalachian Kentucky, 1979

Categories	Observed Enterprise Mix	Old Technology			New Technology		
		Unlimited Capital	$1,000 Capital Limit	$3,000 Capital Limit	Unlimited Capital	$1,000 Capital Limit	$3,000 Capital Limit
Net Farm Income ($)	2,662	4,562	3,944	4,542	6,571	5,493	6,206
Enterprise Levels							
Tobacco Owned (Acres)	0.8	1.0	1.0	1.0	0.8	0.8	0.8
Tobacco On Shares (Acres)	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Corn (Acres)	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Hay (Acres)	9.2	13.6	7.8	14.2	15.0	6.9	20.4
Cucumbers (Acres)	0.1	2.0	2.6	2.0	1.5	2.8	2.2
Peppers (Acres)	0.2	3.7	3.6	3.8	3.8	3.7	4.5
(Total Crops (Acres)	14.3	21.2	15.8	21.9	21 9	15.0	28.7
Dairy Cows	0.0	0.0	6.1	0.0	5.5	0.0	0.5
Beef Cows	3.8	0.0	0.0	0.0	0.0	0.0	0.0
Sows	0.5	0.0	0.0	0.0	44.0	0.0	5.0
Hay Sold (Tons)	6.5	12.9	16.3	15.6	37.3	17.0	49.0
Tobacco Leased (Lbs)	0.0	433.0	433.0	433.0	43.0	433.0	433.0
Operating Capital ($)	745	1,394	1,000	1,402	4,276	1,000	2,016
Annual Capital ($)	616	1,145	0	1,043	4,088	0	680
Building Capital ($)	0	609	0	555	9,020	0	304
Total Nonland Capital ($)	1,361	3,148	1,000	3,000	17,384	1,000	3,000

SOURCE: American Journal of Agricultural Economics, Volume 61 Number 1, February 1979, page 79.

especially farmers, has created some problems. Take, for example, increased output per unit of input. This growth in productivity has benefited society through savings in the resources necessary to produce a given output. However, increases in productivity have caused surpluses in many agricultural products, which the markets could not absorb at acceptable prices. This resulted in low returns to producers.

Out-migration from farming is another example of how the development and transfer of technology impacted negatively on rural people. This occurred in part because new technologies that required added capital investment and increased farm size tended to force the poor or average farm operator past his natural management abilities and thereby out of agriculture.

In closing, technology transfer has had its impact on assisting rural people. It has touched all aspects of their lives and will continue to do so. Future impact of The Role of Technology Transfer In Assisting Rural People will depend on a lot of things, including their attitudes toward and acceptance of various technologies. Nevertheless, technology transfer has planted seeds of optimism for rural people and the 1890 Land-Grant Universities and Tuskegee Institute will continue to fertilize those seeds to assure maximum yields.

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It is my sincere pleasure to be here at Tuskegee Institute today, and to participate in this the forty-first professional agricultural workers conference sponsored by the Human Resources Development Center.

If the Tuskegee Institute founder, Booker T. Washington, or the outstanding researcher, and effective outreach innovator, George Washington Carver were here, they would be proud to learn that the Tuskegee Institute Human Resources Development Center has continued the notable tradition of pursuing an improved quality of life for rural America. My congratulations to the Human Resources Development Center and to the U.S.D.A. — Land-Grant University system which continues to address the problems of rural America.

As I thought about the topic for today, "The Role of Technology Transfer in Assisting Rural People," I found myself repeatedly going back to the question, "What is rural America?"

Then I convinced myself that for us to have an in-depth discussion and some understanding of the role of technology transfer in assisting rural people, we must first answer the question, "What is rural America?" One important way to address ourselves to that question is to recognize what rural America is not.

Rural America may no longer be equated only with agricultural America. In earlier days most rural people were either farmers or performed direct services to farmers and to the production of food and fiber. Today, due to one of the most amaaing technological revolutions of human history, farmers constitute less than three percent of the total national population, and less than twenty percent of the rural population.

To put it another way, the task of producing the raw food and fiber, once the predominant role of rural people and the major determinant of economic wellbeing and life style in the rural community, has today become merely one of a large and increasing range and variety of roles for the rural sector. In terms of numbers of people and percent of popula-

tion, farming today plays a minor role. The rural sector is multi-faceted and needs a wide spectrum of technologists.

Rural people are no longer isolated. With the coming of modern means of communications, rural people are just as informed as their urban friends, neither are they immobile. The growth in the size of farms and the reduction in farm numbers have been accompanied by the movement of rural residences off the farm and into villages and towns.

If rural America is not the stable, isolated agricultural society it once was, what is it? There are still some significant factors which characterize rural life and which differentiate it from urban life. Let us look briefly at some of these.

First, there is a size differential. Rural communities are, by definition, smaller than cities. Second, the rural person has more space, more contact with the natural environment. It is seen as a more humane and livable environment. Because there are fewer people in rural communities than in urban centers, the possibilities of more intense, more personal interactions are still possible

On the other hand, rural America provides fewer public services and job opportunities for its residents.

I have taken some time in discussing rural America because I believe we must have a fairly clear consensus of what we mean by rural life if we are to deal with the role of technology transfer in assisting rural people.

The changes in the structure of rural America have created hardships for rural people many of whom have moved from the farm to unemployment in villages and towns. This situation requires the transfer of appropriate and relevant technology—technology which will result in economic growth and improvement in the quality or rural life. Many rural people now farm small acreages on a part-time basis and could benefit from appropriate small-scale agricultural technologies.

The problems of introducing and disseminating small-scale technologies are complex. Obstacles include the understandable conservatism of rural people, lack of capital and credit facilities, and in some cases, the inappropriateness of the technology.

Technologies which contribute to the broadly based growth of agriculture can provide considerable indirect support for the growth of small rural industries by affecting the growth of rural markets for nonfood goods and services—although the connection between agricultural development and rural industrialization is one which is not always made.

Technologies which lead to an increased income of small farmers are likely to be particularly beneficial, given that a relatively large number of people would have increased purchasing power and given that they are most likely to spend surplus income on the products available from small rural firms.

If small farms do benefit from technology transfer, the rural community will only gain maximum benefit if appropriate technology is adopted by small farms, to enable the small farms to respond to increased

demand for existing and improved products. If not, surplus incomes may still flow out of the countryside and into the cities.

Gradually, development economists are accepting the need for "Intermediate technologies" appropriate to situations in the rural sector where labor is abundant, where local markets need to be generated, and use made of local materials, skills and organizational capacities. Methods are required which multiply work places, that is, which create hundreds of new jobs. This implies technologies which are rural, cheap, simple and small.

No question has haunted the rural sociologists more over the past three decades than that of the changing structure of rural America, first the out-migration and now in the in and out movement of those who have been primarily city dwellers. A parallel question has been the appropriateness and effectiveness of the transfer and application of the most advanced and complex technologies of the industrialized urban areas.

An exemplary response to these questions can be gleaned from Prime Minister Gandhi's philosophy. In Gandhi's search for technology appropriate for application in the village and agricultural development programs in the pre-independence period in India, he said the technology which he sought for adoption by the people had to meet two criteria. It had to be technology that most of the people had the resources and managerial capability to apply, and it had to benefit most of the people.

In the past our main concern was whether or not the application of the technology would be profitable. In the future, we must ask a second question of technology before recommending its application—that question being: If applied will the recommended technology contribute to a more just society? If the answer is **no**, is should be applied only under extraordinary circumstances.

In summary, I wish to emphasize that in recommending technologies for rural people, we must clearly understand the dynamics of rural America.

In terms of numbers of people and percent of population, farming has today become merely one of a large and increasing variety of roles for rural people. The rural community is complex and needs a wide spectrum of appropriate and relevant technologies. Technology which will result in economic growth and improvement in the quality of rural living. In recommending technologies we must give careful consideration to rural values, the availability of credit, managerial capabilities, and if the application of the technology will contribute to a more just society. We must be ever cognizant of the problems associated with introducing and disseminating small-scale technologies, but be enthusiastic about the positive chain reaction a community experiences from the successful introduction of new technology; for example, the interaction between successful small farming, small farms, and industrialization.

In thinking about the forces at work in providing the stimulus for change, it is important to understand that timing and opportunity must either exist or be created to provide both the stimulus and guidance for

change. The time is now; as professional agricultural workers, we must work to create opportunities for rural people and this conference has provided a needed forum to articulate ideas and techniques for assisting rural America.

Mr. Joseph Walden
Farmers Home Administration
U.S. Department of Agriculture
Athens, Georgia

The term technology is generally meant to imply "a specific state of art and science which is used to perform a set of inputs (resources) to a set of outputs (goods and services)." Technology change can be said to occur "when either the form or mix of inputs or the form or mix of outputs are modified from their previous state." Thus, for example, the change from use of animal power to tractor power in production agriculture constituted a major technical change. So did the shift by food processors from preserving fruits and vegetables almost exclusively by the canning process to freezing them.

The USDA and the State Agricultural Experiment Stations have long been productively involved in both basic and applied research. Yet a significant portion of applied technology implemented has always been developed by the private sector. Since the mid-1960s, private sector expenditures for research and development have increased in real terms while those in the public sector have been stagnating or declining. There are many new and emerging technologies. Most new technology will be based heavily on the principal relationships and techniques developed in the basic sciences. An example of this is that emerging biotechnologies with their numerous potential applications (for yield increases, disease control, and others) in plant and animal production. Other new technologies will result from applications of discoveries in chemistry, physics, genetics and physiology.

Secondly, many new technologies will include input from information and management sciences. Examples of these are computerized information and decision aids for farm management and for inventory control and procurement in food marketing. Another example is the use of space-age technologies in monitoring plant disease problems. Computerized information and control systems will also play a key role in development of new technologies such as robonic devices for use in food processing, manufacturing and a broad range of electronic control machinery.

Thirdly, concern about conservation of energy and anticipation of higher costs and/or reduced supplies are exemplified by the current plant breeding work in corn to reduce the need for energy intensive grain drying technology. Other research is aimed at using corn cobs to replace

LP gas and grain drying systems to conserve energy in irrigation and to improve the efficiency with which crops use fertilizer, particularly nitrogen with its high energy involvement.

Fourthly, land and water conservation will be a continuing key objective in developing such farm production technologies as minimum tillage (soil erosion control) and drip irrigation (water conservation). Efforts will also be made to reduce water requirements and food processing, both through new technologies and through increased recycling of waste water. Since labor efficiency research will continue to induce new technology into the still labor-intensive marketing sector, it will also target interest in increased use of robonic devises as substitutes for high wage workers.

The list of new and emerging technologies goes on and on.

The ultimate role of the transfer of technological innovations — either in the form of technical knowledge and information or mechanization devices—should be to contribute to an improved quality of life for rural people. Technological innovations should contribute to social and economic development (e.g. jobs, income and equality), development of problem-solving capabilities which are oriented toward human development, economic development, protection of the environment and improvements in rural facilities and services (e.g., education, health and transportation).

The challenge is to develop "appropriate" technologies and to succeed, not only in disseminating them, but also to aid in facilitating their adoption. This is not an easy task. While technological innovations have contributed significantly to economic growth and prosperity, the growth and prosperity have not been equally distributed. In other instances, technological innovations had negative impacts on the quality of rural life.

Dr. Dorothy B. Conteh, Professor
Home Economics and Chairperson
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Fort Valley, Georgia

Earlier comments outlined the historical evolution of technology transfer and specifically the role of 1890 Land-Grant Institutions in assisting rural America. The focus of my comments is to show how home economics can and must be incorporated into the process. In our modern, highly industrialized economy, families are dependent on social and economic policies. These policies produce changes in earning abilities, job opportunities, purchasing power and the availability and cost of goods and services.

Attitudes and social policies reflect the view that the family is still the master of its ship, and that with diligent seamanship, every family can

arrive at a favored port, regardless of the economic and social conditions of the water in which the ship must sail (Metzen, 1975:12). This observation is true for families in general and rural families in particular. Additionally, social policy tends to forget that the self-made man is vanishing, that frontiers with unlimited opportunities and bountiful natural resources have largely been conquered, and the willing spirit, positive attitude and strong back no longer guarantee an acceptable living standard. Rural America is a reality and so are the many problems individuals face. We must, therefore, reexamine our priorities and develop strategies to deal with the realities of economic and social development.

The Rural Development Act of 1980 outlines sociological and economical concerns relative to the family. Some of the concerns will be addressed through existing knowledge; however, others point to the gaps in knowledge and will require more research. The needs for further research in related problem areas were further magnified by the Southern Rural Development Center's survey (1981) which resulted in the subsequent ranking of rural development research priorities. The following were listed as five of the high research priority areas of the 1980s:

—impact of growth and development on the demand for and costs of services
—utilization of water resources
—impact of energy shortages and inflation
—availability of health care
—preservation of land for future generations.

Programs initiated during the 1960s did not result in significant advancements for the clientele. Too often we promoted programs whose goals were out of step with the aspirations of people we sought to serve. In too many instances the program served the vested interests of a few individuals. I am reminded of the lofty ideals proposed on the "War on Poverty." The disproportionate return based on resources expended taught us some important lessons about the prerequisites of designing amelioration programs. Fundamentally, we all know now that people, not programs nor dollars, accomplish change (King, Spring, 1979).

According to Madden (October, 1977:4) we must "educate citizens in the rural development process; to meet specific, realistic goals . . ." While we are aware of the importance of the dollar, we must face the truth—that money is not the only prerequisite to rural development. Careful planning must be the key to maximizing the use of scarce dollars and a comprehensive, integrated plan which draws upon many disciplines is strongly suggested.

Home economics and rural sociologists should not work in isolation if we are serious about the task of helping rural people. The job is too big for turf manning and we must accept the truism that creative ideas and approaches come when we involve other disciplines in technology transfer efforts. In addition, care must be exercised in identifying goals

that are not too broad and techniques that obscure the outcome of the development strategies.

The role of the Home Economist should be that of providing the mechanism through programming to assist individuals, families and communities in making wise decisions on the expenditure of family income. This implies assisting in the development of informed citizens who have information which will enable them to make sound decisions in meeting existing and future needs. Just as important, the role of the home economist is paramount in research and development. "Home Economics is the only profession and body of knowledge which focuses on the family as its core and nucleus, and works predominantly in a preventive, educational, developmental mode rather than through remediation, therapy, or crisis intervention" (Green, 1982:40). With its uniqueness, Home Economics can contribute to the planning of strategies to assist rural America in the areas of research and education.

The commitment to assisting individuals and families to improve their "quality of life" places home economics in a position to assume the leadership role in helping families to face the realities of present and future social and economic constraints.

What specific contributions can home economics make in research and instruction? Home Economics, through research and education can supply solutions to problems as to how best to assist families in seven (7) specific areas:

—Making life-style adjustments in consumption habits (Magrabi, 1980:15). We, after all, did much of the "how to" consumer education. Basic to such change, however, is the need to reassess what constitutes "the good life" **and** to develop social indicators to measure "quality of life" more effectively than today's indicators (the prices of goods and services) (Metzen, 1975:14).

Families must be helped to adjust habits commensurate with the knowledge that more does not mean better; that the "high cost of living" complaint usually means "the cost of living is high." We must begin to admit that poverty is also the result of **how** we use the limited family resources at our disposal.

—Conserving natural resources including energy (Cornille, et al, 1979:37). Many rural families have only recently acquired many of the comforts which draw heavily on natural resources (central heating/cooling, luxury transportation, microwaves, etc.). It would be foolhardy to think that families would abandon these conveniences but they can be helped to develop conservation behavior decisions in their use.

—Increasing emphasis on human services,interpersonal relationships and personal fulfillment to reduce obsessions with material goods and packaged entertainment (Henderson, 1980:25).

—Enhancing rural parenting behaviors (Crase, et al. 1980:164) to improve parent-child interaction to assist children in achieveing

positive self-concepts regardless of family economics or other conditions.

—Improving basic health through good nutrition, preventive care and proper sanitation practices.

—Reducing the social tension, stress and conflict that result from lack of understanding by the larger community of rural family needs, goals and aspirations (Boss, 1979, p. 21).

—Improving and maintaining the environment, home and surroundings through personal creativity and efforts.

These are some ways in which home economics can lend its expertise t the development of an integrative approach to meeting the needs of rural America in the areas of research, instruction and technology transfer. Implementation must be flexible to accommodate the uniqueness of communities, families and individuals to be served. Any approach which ignores the distinctiveness of the 1890 Land-Grant universities and Tuskegee Institute rural clientele or fails to involve the community as a whole in the development of specific problem solving strategies is doomed from the outset.

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FEEDBACK FROM PAWC PARTICIPANTS ON ASSISTING RURAL AMERICA

This section of the Conference received maximum input from the over 150 participants in attendance. During the period, the various groups (workshops) were together, they focused attention on the totality of the conference relative to individual agency and clientele served. There are seventeen 1890 Land-Grant Universities (Table 2).

Table 2: Presidents/Chancellors of the 1890 Land-Grant Universities and Tuskegee Institute, 1983*

Institution	President/Chancellor*
Lincoln University	Dr. Thomas Jenkins, President
Alcorn State University	Dr. Walter Washington, President
South Carolina State College	Dr. M. Maceo Nance, Jr., President
University of Arkansas, Pine Bluff	Dr. Lloyd Hackley, Chancellor
Alabama A & M University	Dr. R. D. Morrison, President
Prairie View A & M University	Dr. Percy A. Pierre, President
Southern University System	Dr. Jesse Stone, Jr., President
Tuskegee Institute	Dr. Benjamin F. Payton, President
Virginia State College	Dr. Wilbert Greenfield, President
Kentucky State University	Dr. Raymond M. Burse, President
University of Maryland—Eastern Shores	Dr. William Hytche, Chancellor
Florida A & M University	Dr. Walter L. Smith, President
Delaware State College	Dr. Luna I. Mishoe, President
North Carolina A & T University	Dr. Edward B. Fort, Chancellor
The Fort Valley State University	Dr. Luther Burse, President
Langston University	Dr. Ernest L. Holloway, President
Tennessee State University	Dr. Frederick S. Humphries, President

*As of February, 1984

The 1890 Land-Grant Universities and Tuskegee Institute have a long history of assisting rural America through activities designed to accelerate the development process of individuals who are outside the economic mainstream. The Outreach Strategy at these universities delegates significant roles to the private and public agencies. Comments from the various authors mirror the degree to which the outreach strategy accomplishes this role. All the 1890 Land-Grant Universities and Tuskegee Institute have linkages with individuals and organizations having responsibilies in the area of human resources development. Presented in this section of the 1983 Annual PAWC proceedings are examples of linkages effectuated by member institutions. It is significant to note that the comments represent an macro overview of the role of various agencies in assisting rural America.

Dr. Cynthia B. Smith, Professor
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Normal, Alabama

Briefly summarized below are inputs from Workshop sessions. The comments capture the tenor of the discussions that permeated the conference. For example, both Dr. D. Godfrey's and Dr. O. Adams' papers addressed the workshop theme, and Mr. L. Gray's paper focused on the invoivement of the Food Safety and Inspection Service as a regulatory agency in education, research and technological transfer. Dr. Godfrey spoke to the Role of Education in Assisting Rural People by addressing four subareas:

—Education and Rural America
—A Changing Face for Rural America
—Education for the Masses: Rural/Urban America
—The Cooperative Extension Service: Nearly a Century of Extended Education

Throughout the Workshop sessions attention was given to the terms **education** and **rural people** with education being alluded to as a change in behavior in the context of existence within a highly industrialized society.

In discussing education for the masses, Dr. Godfrey pointed out that education in America has taken many forms. He reminded us that these forms include apprenticeships, town meetings, formation of agricultural societies, churches, fraternal orders, private vocational schools, common schools, community/technical schools and universities (including land-grant colleges/universities).

Workshop participants emphasized that the land-grant college/university has persisted as one of the most formative educational forms for assisting rural people as well as urban people. The Cooperative Extension arm of land-grant universities has enabled them to extend the campus as well as field based research to many users, especially those who cannot participate in formally structured on-campus classroom settings. It was suggested that significant among the methods/techniques employed has been the willingness and the ability to work with the rural family and/or individual family member by utilizing a one-on-one teaching approach. The show and tell method with its traditional apprenticeship nature has proven its worth to the learner and to society for several decades.

Some Workshop participants stated that the successful experience of teaching people within their own environs, regardless of educational attainment level and social or economic resources has helped raise the overall standards of life for many people residing in rural and urban America.

The Workshop closed with Dr. Godfrey addressing the challenge to "educate" in a hi-tech society in the midst of continued high levels of functional illiteracy especially for the more rural limited resource audiences. He posed two questions: 1) How will future agriculturists "educate" the rural poor in teaching and informational delivery methods become more and more reliant or will be placed on hi-technology? and (2) will we not leave behind a significant segment of our population, many of whom still reside in rural America? He resolved that unless we commit more time, effort, and resources to educating people where they are, much in terms of human resources development will be lost.

In addressing this same concern, Dr. Adams stated that individuals in our society who do not possess the skill, literacy and training essential to the new era will be effectively disenfranchised, not simply from the material rewards that accompany competent performance, but from the chance to participate fully in national life. He pointed out that the problem we face lies not so much in further discovery or the production of material goods as in better distribution systems, broader based knowledge and greater concern for all citizens and especially those who inhabit rural areas. He commented out that although higher education, with its land-grant universities, community colleges and non-traditional education has attempted to serve the full spectrum of learners, education and educators must continue to expand their roles in improving living conditions in the rural sectors.

The Workshop participants emphasized that education to meet the needs of the rural sector must begin with open dialogue as an initial part of program planning. In elaborating on this idea, the participants stated that educators are obligated professionally to provide relevant information and advice to rural residents, being mindful that motivation promotes learning and that individuals learn what is deemed useful to them. Communication through open dialogue provides input from rural residents, thereby enhancing the chance for successful programs and at the same time stimulating actions that will ultimately lead to an improved standard of living.

The participants challenged each other to join hands with counterparts in instruction, research, and agricultural extension, to insure that there is no breakdown in the delivery of educational and technical information to rural America.

Another panelist, Mr. Gray, articulated the involvements of the Food Safety and Inspection Service in education, research and technology transfer. He stated that in regard to education we need to encourage teachers, especially or primary grade children, to get involved in projects devoted to agricultural concerns. He presented an example of the poster project on Food Safety done in his area by primary school children.

The discussion following the presentations by panelists dealt with a broad spectrum of issues impacting **Agriculture and Education** in general. Some of the problems/issues pointed out were:

—Lack of qualified professionals available to fill education position vacancies.
—Lack of orientation of professionals to real-life situations.
—Need for schools to reassess methods used in teaching urban students agricultural subjects.
—Lack of role models, especially blacks and minorities in agricultural areas.
—The need to educate educators (counselors) on the depth of content of agricultural problems and the many careers embodied in the field of agriculture.
—Need for basic education on agriculture related topics as integral parts of K-12 education.

The Workshop sessions were informative and thought-provoking with interesting dialogue between panelists and participants, and between participants.

Dr. R. A. Voitle, Dean
School of Agriculture, Forestry and Biological Sciences
Auburn University
Auburn, Alabama

The land-grant university has rather clearly defined overall missions in the areas of teaching, research and extension. Legislation that established the land grant program dealt only with teaching, however, with research and extension added later. The original charge of the land-grant universities was to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life. This was to be done without excluding other scientific and classical studies. This mission is as pertinent today as it was a hundred and twenty years ago.

A major problem faced by all schools that are trying to develop "agricultural mindpower" is the steady decline in enrollment of "Ag majors" in the last 5 to 6 years. A major reason that students are turning their backs on agricultural careers in increasing numbers is the constant exposure to the concept that farming is a poor financial risk and there is "no future in agriculture." These misconceptions are reinforced almost daily by news accounts of bankruptcy and the plight of the farmers. The truth is there is an annual 13% shortfall of graduates with adequate food and agricultural expertise. Dynamic agricultural positions exist in business, communications, science, government services, education, production, processing and marketing, as well as positions supportive of these; i.e., engineering and computer science. Many of these positions must go unfilled because of the lack of agricultural expertise. Agricultural careers appear to be even less appealing to minorities than they are to the

population as a whole. A major reason for this is that there are not sufficient role models available for minorities who have an interest in agricultural careers. A thorough understanding by every citizen of the role of American agriculture in the world economy and in foreign policy decisions is crucial to the U.S. remaining a world leader. It is imperative, through the educational system, to provide an understanding of the food and fiber industries, what they are, how they function, and what job opportunities are available now and in the future, as well as to encourage the educational institutions of this country to use the most effective methods of incorporating positive concepts of agriculture in existing curricula. Two important projects sponsored by the USDA address this problem. One is the Ag in the Classroom concept in which a concerted effort is being made by the USDA to organize the states so that agriculture can be presented in K through twelve classrooms. In addition, the USDA, in conjunction with the Kellogg Foundation, is sponsoring a national conference on Food/Agriculture in the Liberal Arts. A pilot program has been established at the University of Florida and in January of this year the National Conference will try to develop the concept of including food/agriculture in the liberal arts curricula of many of the universities in the United States.

The passage of the Hatch Act in 1887 and the Smith-Lever Act in 1914 developed national systems of agricultural research and extension through coordination of programs in agricultural experiment stations and agricultural cooperative extension services. All three sides of the triangle are necessary (teaching, research, and extension) if the land grant university is going to be of maximum service to the people it was designed to serve.

The research arm of this triangle has the responsibility to conduct agricultural research that supports the agricultural and forest industries enabling them to produce an adequate and dependable supply of food, feed, fiber, and other products of acceptable quality at favorable economic returns to the producer and in the best interests of the consumers. The contributions of agricultural research in increasing production is obvious. Investments in agricultural research return 25% to 50% annually. These investments are more important today than they have been in the past because problems that face us continue to grow at an increasing rate. To reduce support for the agricultural research at this point in time is to turn our backs on the problems that face America now and in the future.

The extension service is the arm through which the university's research and other resources are extended to all the people. This arm functions through the county agent who assumes local leadership with better farming, better living, better education, and better citizenship the result. New techniques, methods and procedures have been instituted and others modified to meet the changing needs of changing times, but the organization's goal remains the same—helping people to help them-

selves. Through the extension service the entire state becomes the campus of the land grant institution. Information transfer is a buzz word that has real meaning for the extension service now and in the future. The extension's unique ability to transfer information comes in large part from the fact that there are agents in every county who develop, organize and carry out programs to meet the needs of the local people. Living in the community, the agents associate closely with their clientele and involve them in program planning decisions. The uniqueness of this arrangement has allowed the United States to transfer information more efficiently than most other nations. The effective use of electronic information transfer will allow even greater service in the future.

Programs in teaching, research and extension touch the lives of every American. It is essential that every land grant insitution develop a record of accountability that is accepted by the public it serves. This will help insure that more nearly adequate resources will be made available to support these programs which have allowed the United States to become a world leader and are essential for it to remain a lead nation.

Dr. Alfred L. Parks, Coordinator
Department of Agricultural Economics and Rural Sociology
Prairie View A & M University
Prairie View, Texas

The importance of technology transfer in assisting rural people has been widely recognized for some time. Various approaches to the delivery of technology have been devised and implemented.

During the workshop dealing with the role of technology transfer in assisting rural people, presenters from government agencies and universities constituted the panel. One presenter, Mr. Preston Davis from the Office of Small & Disadvantaged Business Utilization, began his discussion by defining technology as "a branch of knowledge which deals with the industrial arts." He described technology as "a means of improving the quality of life for rural people." Mr. Davis elaborated on the need for jobs in rural communities and ended his presentation by (1) outlining the programs for minorities through the Office of Small & Disadvantaged Business Utilization, and (2) suggesting joint ventures between the various agencies and interest groups.

Another presenter, Dr. John T. Haas of the Agricultural Cooperative Service, outlined five basic functions that the agency is attempting to carry out through co-ops. They are to:

—Conduct research and analysis on all phases of cooperation and publish the results of the studies.
—Conduct studies of operations of individual cooperatives upon their request.
—Acquire, analyze, and disseminate economic, statistical, and historical information on cooperatives.

—Assist groups of producers who desire to form a cooperative (cooperative development.)
—Promote the knowledge of cooperative principles and practices.

In order to carry out the mission as described above, Dr. Haas outlined the organizational structure and the three program divisions.

Dr. Samuel Donald was another Workshop presenter and he began his comments by defining technology transfer as an "applied science or the application of science and of technical advances in industry, manufacturing, commerce, and the arts and the means by which material things are produced, then transferred from one person, or place, to another." Dr. Donald described technology transfer as a process of improving the input/output of resources and the quality of life for Rural Americans. Some examples of improvement or effects of the role of technology transfer that he outlined were:

—Technology transfer has led to increased output per unit of input from rural people. This he illustrated by showing the shifts in the production function and/or the supply curve. The result of which are three direct benefits:
  a. that more output can be obtained from the same amount of resources
  b. that the same amount of output can be obtained from less resour ces
  c. that some combination of more output and fewer resources can be obtained

In addition to the direct benefits of technology, Dr. Donald outlined other benefits to society, and to farmers in particular. These included:

—Technology transfer has led to improved public services for rural people.
—Technology transfer has led to increased returns to productive resources.

Dr. Donald concluded his presentation by pointing out that not all technology transfer has been positive. He indicated that there are some negative effects, some of which include surpluses in production and out-migration from rural to urban communities.

The last Workshop presenter, Dr. Ted Wilson, focused his remarks on two basic areas: (1) The purpose of technology — which he described as improving the quality of living in the rural areas. This he defined as the ability to achieve more output with the same amount of or less resources. (2) The role of the human element in technology transfer was the second area. On this note he suggested that in order to achieve the goals of a successful technology transfer program, we must devise a system of obtaining the acceptance of those receiving the technology transferred.

The discussion that followed each presenter was provocative and enlightening. The Workshop participants were in agreement that the give-and-take discussion served to enhance their understanding of the

role of agencies in assisting individuals to improve the quality of life for rural America.

Dr. Paul M. Howard, Deputy Chief
Technology Development and Application (SCS)
U.S. Department of Agriculture
Washington, D.C.

It is a pleasure for me to be here and to represent the Soil Conservation Service (SCS). The SCS is one of the major agencies within the United States Department of Agriculture. We have about 14,000 employees in approximately 3,000 field offices throughout rural America.

The SCS is an "action" agency. We provide services to farmers and other land users to help them solve soil, water, and other natural resource problems. We are very interested in the discussions that have taken place here this week. We will take many of the ideas that have been put forth and apply them as we work with people throughout rural America. As to the theme, **The Role of USDA, Land-Grant Universities and Other Agencies in Assisting Rural America — Research, Education and Technology**, we can play a vital role as briefly discussed below.

Research

SCS has very limited research authority. We must rely on research agencies and organizations. However, through an extension national effort, we develop an annual report that describes and prioritizes our needs for soil and water conservation-related research. These needs are directed to the Agricultural Research Service of USDA, State Agricultural Experiment Stations, Land-Grant Universities, and agencies outside the traditional agricultural community, such as the United States Geological Survey, Corps of Engineers, Fish and Wildlife Service, etc. We then follow up and work with these agencies at the national level in terms of programming and budgeting, and at the State and local levels as well as with individual scientists.

Education

In a similar way, we depend to a very large extent on the Cooperative Extension System for the educational aspects of soil and water conservation. Our annual report identifies highest priority needs for education. We work very closely with State Cooperative Extension Agencies and with the Extension Service at the national level to help insure mutually supportive efforts. It is essential that SCS's information program and Extension's educational thrusts are complementary.

Technology Transfer

As an agency, we have a very direct role in this. Therefore, it is essential that our field people, who work directly with farmers and other users of the Nation's soil and water resources, keep abreast of the latest

findings from research. This is a real challenge. I could cite many examples of where the transfer of such information to small farmers, low-income farmers, and black farmers has contributed significantly to rural development. Actually, our programs contribute to rural development in one way or another.

In closing, let me say that SCS is pleased to have been a part of this conference. As Dr. Williams pointed out earlier, we have about 40 or our top agency people here — more than any other group or agency. We have all learned quite a bit at this conference, and we hope we will be able to apply what we have learned as we work with you in rural America. Let me assure you that we will follow through in addressing the problems that have been identified. In fact, we had a 3-hour agency meeting late yesterday afternoon in which we discussed policy, program, and action that we should take in the problem areas.

"SHOW AND TELL" IMPLEMENTATION OF STRATEGIES TO ASSIST RURAL AMERICA/ THE 1890 LAND-GRANT UNIVERSITIES AND TUSKEGEE INSTITUTE EXPERIENCES

This section presents examples of how the Land-Grant System combines instruction, research and technology transfer to assist rural Americans. In addition, included in this section is the Public Service Award concept papers prepared by that committee for review and inputs.

Specifically, this section explores strategies developed and implemented by the 1890 Land-Grant Universities and Tuskegee Institute to serve rural people. Over the years such strategies have proved effective in assisting these college clientele to improve their quality of life. Just as importantly, the strategies have demonstrated that activities can be developed and implemented to improve the "quality of life" for rural people who were traditionally outside the mainstream of society. The tested outreach experiences of these colleges (1890 Universities and Tuskegee Institute) have revealed that there are major prerequisites to the qualifications of the staff charged with program development and implementation, and we share them with you at this time. The Outreach Staff must (1) recognize the strengths and weaknesses of people involved in past programs to ameliorate identified community problems; (2) view the private and public sectors as partners in the creation of a viable community; (3) involve local people and resources in program development and implementation; and (4) adhere to the principle that staff responsibilities transcend academic discipline and focus on total involvement of each staff member in the project. Effective implementation of an Outreach Strategy for assisting rural America will require staff members who are (1) sensitive to the needs of others; (2) committed to the development of people for fuller participation in community life; and (3) recognize events and circumstances when conventional training is inadequate to understand or explain the human resource development process. While the profit motive must be considered, strict pursuit of profit might not in itself facilitate total community involvement.

In carrying out the strategy, for a staff member to be effective, the following qualities must be present and adhered to. The Staff Member must be (1) objective enough to accept change in beliefs; (2) cosmopolitan enough to realize that the project implementation will be the impetus for change; (3) wise enough to understand that one can be understood and misunderstood by members of the team and by people in the target community; (4) broad enough in thinking to recognize that traditional formal training might not be adequate to provide the perspective necessary to accomplish the project objectives; and (5) forceful enough to press for the objectives the target group collectively decided to accomplish. To compromise any of these qualities is tantamount to accepting a status quo

attitude toward development. The results will be failure of the development strategy to assist rural America to increase income and improve community life.

Formal and informal dialogues during 1983 provided additional insight into an Integrated Strategy for assisting rural America. This section of the report mirrors the expanded thrust of the Conference and provides significant insight into how to design community development programs.

Demonstration Family Farm
The South East Alabama Self-Help Association, Inc. (SEASHA)
Tuskegee Institute, Alabama
Mr. John Brown, Jr.
President

COMMENTS:

The purpose of this demonstration "Family Farm" project is to provide a means for increased or total self-sufficiency for rural, poor families. Many of these families own or have access to land. However, the size of their land holdings, its marginal fertility and a lack of knowledge of innovative techniques maintain these families' dependence on public assistance despite existing resources.

Among the population targeted under this demonstration are rural residents who share the most acute characteristics of the following profile of rural poverty (from 1978 Census data):

—Of the 69.9 million rural people, over 9 million persons had income below the poverty level. An additional three and a half million families had annual incomes of less than $10,000.

—The average income of a rural poor family was $3,394. This amounted to $282.83 a month, or $9.30 a day. In a family of four each family member had $2.33 a day to spend for food, housing, clothing, and other necessities. This average income takes into account both earnings and public assistance payments.

—The majority of the heads of rural poor families worked at least part-time or part of the year, and only one-fifth of the heads of all rural poor families held full-time jobs.

—Approximately one of every five rural families relied totally on earnings and received no public assistance or other transfer income. On the other hand, approximately one-third of the rural poor relied totally on income other than earnings, including social security, public assistance, supplemental security income, and other income sources. The rest of the poor had an income that was a mixture of earnings and transfer income.

SEASHA serves twelve southeastern Alabama counties that are among the counties that have the highest concentration of black small farmers and other poor rural residents. Of the 462,819 total regional population, 44 percent are black with a median family income of $3,540. Black small farmers in this area represent an average of 25% of all farmers, and, in some counties, number as high as 45%. Fifty-seven percent of all rural residents are black. Unemployment among whites is 14 percent; black unemployment is 25%, and higher in many rural districts. Only 21 percent of black-operated farms have sales of $2,500 or more.

Important new technology that will aid the small farmer and landowner in retaining their land and making it productive has been developed. However, the government agencies and educational institutions who have created the technology, have not instituted a process to transfer their knowledge successfully to the small farmer and poor landowner.

SEASHA, comprised of small farmers and poor landowners among its constituent membership, has taken up the task of identifying, testing and adopting innovations that will render their landholdings productive.

American agriculture has changed dramatically during the past twenty years and more, and these changes have created serious problems for family farms in terms of their continued viability. Because of the dramatic changes and their impact on the American economy, particularly the agricultural sector, a comprehensive evaluation of American agriculture was conducted by the U.S. Department of Agriculture. The project was initiated in March 1979 by Secretary of Agriculture Bob Bergland "to research current structural issues, to determine the impacts of current market forces and policy on agriculture, and to recommend policy alternatives." The findings of the project are reported in the publication, *A Time To Choose: Summary Report on the Structure of Agriculture*[1]. One of the general recommendations made in the Structure Report illuminates the current plight of the American small farmer:

> "... we submit that is a diverse farm sector is to be maintained, it is important that policies recognize problems peculiar to specific groups of farms and address these problems directly. The 'broadside program' approach, perhaps more appropriate in the past, is doing more to concentrate production than it is to protect the farm sector."

Among the specific findings and recommendations reported in the Structure Report relative to small family farms are the following:

—The present tax policies are having a significant effect on farm structure-on balance, they are biased toward the larger farmers and wealthy investors.

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[1]*A Time to Choose: Summary Report on the Structure of Agriculture.* United States Department of Agriculture: Washington, D.C.; January 1981.

—Changes in the agricultural marketing system have affected structure. Increasingly, the marketing system is oriented to better serve the larger producers.

—Farm commodity and credit policies have been of greater benefit to the larger producers, and this has affected structure.

Finally, these two observations made in the Report highlight the manner in which changes in the structure of American agriculture have adversely impacted small, family farm operators:

> "We also found a growing concentration throughout the entire food industry—a concentration that showed itself in several ways. Commodity production is highly concentrated. The benefits from the commodity programs, still disbursed by the volume of production on each farm, are similarly concentrated. Ownership of the resource most important to farming—the land—is vested in the hands of relatively few people. Agricultural input supplies, the agricultural marketing system, food processing, distribution and retailing, are all increasingly concentrated."

> "The supply of land is limited, and its role in farming is unique. Simultaneously, it is a production input, a store of wealth, the ultimate repository of program benefits, and the biggest barrier to occupational entry. The concentration of landownership and the declining share controlled by farm operators are fundamental structural changes, and, therefore, are most serious."

As foreboding as the future appears to be for the American small family farm, the situation is even more critical for black farmrs and landowners. In a report titled, **The Decline of Black Farming in America**[2], these findings are revealed; namely

—The current rate of decline of black-operated farms in the United States is 2½ times the rate of decline for white-operated farms.

—There has been no significant Federal effort to halt the loss of black-operated farms.

—The systematic consideration of minority needs and concerns in policy formulation and program planning is essential for a meaningful civil rights effort . . . Minority program participation targets have not been set in advance of the program year and policies which would significantly affect minorities have been proposed without civil rights impact analysis.

—The Equal Credit Opportunity Act (ECOA) prohibits discrimination by lenders on the basis of race, color, religion . . . The Federal Trade Commission (FTC) is authorized to enforce compliance with ECOA in direct loan programs administered by the Farmers Home

[2]The Decline of Black Farming in America; A Report of the United States Commissin on Civil Rights; February, 1982.

Administration. However, the FTC does not monitor FmHA's compliance, nor does it investigate all complaints.

—FmHA County committees composed of three members, at least two of whom are farmers, determine the eligibility of FmHA farm loan applicants and the limits of credit to be extended to borrowers. Committee members are nominated by FmHA county supervisors and appointed by FmHA state directors. Between 1979 and 1980 the number of black committee members fell 39.8 percent nationwide, despite an increase in overall committee membership during the same year.

These two recent national reports indicate that the viability of small family farms in general and black-operated farms in particular is being seriously challenged by changes in the structure of agriculture and policies which adversely impact on the black farm. These same trends are even more profoundly present in the rural South, particularly, in the State of Alabama. Moreover, the State of Alabama, in a report[3] prepared by the State Farmers Home Administration, has listed findings that it concludes are negatively affecting rural, small and black family farms and landowners and require attention. These include the following:

—The average age of the farmer in Alabama is 52.3 years, and young people are not entering the field of agriculture in sufficient numbers to insure a strong agricultural base for the near future.

—Due to out-migration of the rural population and the reluctance of young people to engage in agriculture, many predominantly rural counties in west central and southern Alabama have disproportionate concentrations of young Black children and elderly whites, and a scarcity of population in the most productive ages. This condition has created an increasing need for services and a diminishing ability to pay for these services.

The demonstration Family Farm Project is designed to address many of the issues and concerns raised concerning the current structure of American agriculture and the plight of rural, poor and black farm families and landowners.

Program Strategy

The demonstration "Family Farm" project proposed by SEASHA is designed to show the effectiveness of small-scale intensive agriculture and to teach farm management practices that will enable poor people to duplicate these methods on their own land. The Family Farm will demonstrate how even limited landholdings, 1-30 acres, can be economically exploited to yield significant income and employment for the rural poor. The project will also combat hunger through the encouragement of planting gardens and producing farm animals for home consumption and local sale of surplus products.

[3]**Famer's Home Administration State Policy Plan for Rural Development in Alabama**; Farmers Home Administration; U.S. Department of Agriculture; March 1979.

Project Objectives

—Obtain and cultivate 30 acres of farm land in rural Macon County, Alabama, utilizing a special small farm plan that incorporates a variety of high yield crops and livestock that can be operated and managed on a labor-intensive rather than capital-intensive basis.

—Train 20-50 poor, marginal farmers in these techniques and develop 25-50 family farms within a twelve-county area of southeast Alabama.

—Increase the interest and recruitment of young people into agricultural occupations.

—Develop and coordinate market outlets for the farmers assuring fair prices and stable incomes.

—Arrange for or provide technical assistance to poor farmers to enable them to obtain necessary credit from public (Farmers Home Administration of the U.S. Department of Agriculture), or commercial lending sources.

—Encourage educational institutions to form partnerships with community organizations to promote research and application of appropriate technologies to enhance employment, food supply and overall quality of life for rural people.

Small Farm Model

The following illustration demonstrates the crop mix and farm plan design of an intensive small farm operation. The components of the small farm are designed to meet the following criteria:

—The components must provide year-round, weekly family income.

—The components of the farm must be compatible — that is, they should not compete with each other for harvest labor.

—Each component of the farm must produce sufficient commodities which, if sold at market value, will result in a gross yield of $3,000 per acre.

—The farm (30 acres) must provide year-round or full employment.

—The income is sufficient to provide an adequate standard of living (goal: net income of $15,000 per year).

—The family produces more than 50% of its own food.

—There must be adequate markets for the commodities produced.

The basic concept of intensive farming is to produce crops and animals which will generate a large yield per acre of land when compared to feed grain, cotton and other mechanically-produced crops. Initial crops to be produced by the demonstration are:

five acres of mixed greens
five acres of muscadine grapes
one acre of blackberries
one acre of strawberries
two acres of blueberries
five acres of sweet potatoes
five acres of field peas
five acres of semi-confined hog production
30-50 hives of honey bees

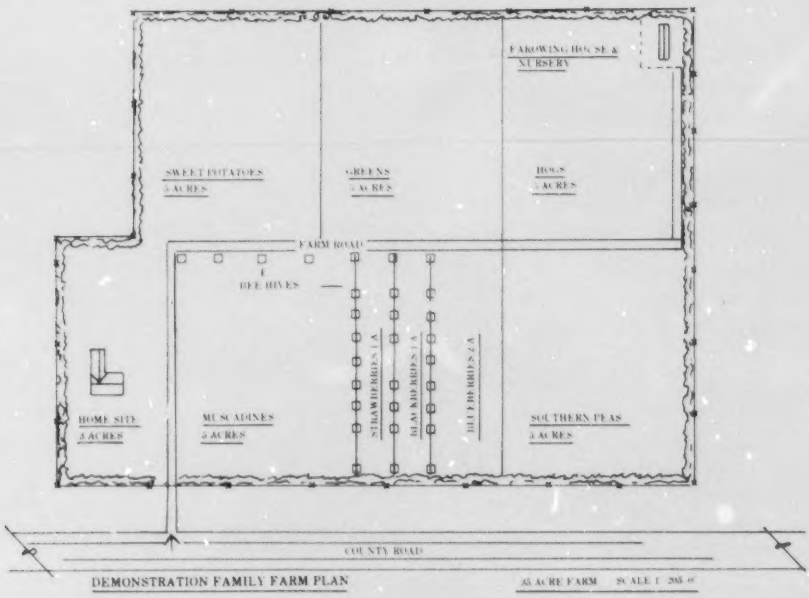
However, with the exception of permanent crops—grapes, blueberries and blackberries— crop mix will vary from year-to-year and from season-to-season depending on market demand and other external factors.

The crop package proposed for the demonstration farm has a staggered harvest schedule to accommodate criterion that it provide year-round, full employment. The schedule follows:

CROP	TIME OF HARVEST
Strawberries:	April-May
Blackberries:	May-June
Blueberries:	June-July
Greens & Sweet Potatoes	July-August
Muscadines:	August-September
Honey and beeswax:	Late Fall
Turnip and Collard Greens:	Late Fall - Early Winter
Swine:	Monthly

The selection of the crop package for the demonstration family farm is based on more than twelve years' experience by SEASHA in swine production and on more than twenty-five years' research by Dr. Booker T. Whatley, a world-renowned horticulturalist. Dr. Whatley has agreed to serve as a technical advisor to the demonstration family farm project during the implementation stages.

Farm Outlay For 35 Acres Arable Land



Evaluation

All crops, livestock and methods of cultivation included in this proposal have been evaluated and production techniques published by Tuskegee Institute Cooperative Extension Service. The success of the demonstration farm will be measured against the scientific analysis of crop yields as determined by the farm plan devised by SEASHA and its technical assistance providers.

To accommodate the evaluation of crop yields, the Tuskegee Institute School of Agriculture has provided a list of anticipated yields for the crop mix proposed for the family farm. The degree to which the demonstration farm approximates the optimum yields described in the Tuskegee Institute materials will serve as the primary method of evaluating the success of the operation.

In addition to evaluating the production yield of commodities grown on the demonstration Family Farm (analysis provided by Tuskegee Institute) the project assesses the effectiveness and viability of using the following factors as measures of success:

—The number of farm families who participate in the demonstration;
—The number of families who earn all or a major portion of their income from the project;
—The number of loans made by FmHA and other lenders to participating families;
—The number of families removed from public assistance rolls;
—The number of families who reduce their food bills by at least 50 percent;
—The number of new families (especially young adults) who participate in the Project who have not previously engaged in agricultural production.

Moreover, the demonstration Family Farm is expected to generate a net income of not less than $10,000 each year by the end of year three. Income should increase to not less than $15,000 between 3-5 as grapes and blueberries reach full production.

In addition to these measurements of the project's impact, each training component will have an evaluation to assess needed modifications in future training designs and sessions. The current SEASHA Management staff uses a "Team" approach in evaluating existing program operations. The approach included short- and long-range goal setting, discussion of accomplishments, problems and needs, and task assignments. The "Team" meets every three weeks (more often if the need dictates) and the process is on-going. This approach will be implemented at the onset of the demonstration Family Farm Project.

Project Implementation Plan

During the first twelve months of the project, a farm manager and a farm family will be recruited. (The farm family will possibly be recruited from among the participating farmers.) Land will be cleared, tested

for fertilizer and other needs, fertilized, prepared for planting and crops planted, cultivated and harvested. Markets for all products will be identified and a training and demonstration program designed and implemented for participating farmers and farm families.

Simultaneously with the activities described above, farm families and landowners who have already indicated an interest in the project will be contacted. As well, efforts to inform other potential farm families and landowners of the project will be made.

On January 19, 1983, SEASHA contracted with a consultant to perform an analysis of SEASHA's interest and capacity to establish a Family Farm Demonstration Project and to determine the level of interest of area farmers. In connection with the latter task, farmers were polled to determine their current intensity of farming and their interest in adopting alternative production methods and crops. Announcements and questionnaires were designed and mailed to approximately 300 farmers and landowners in the SEASHA target areas, plus telephone contact was made with a number of farmers.

While the preliminary assessment of farmers' and landowners' interest in the demonstration Family Farm Project has been deliberately low-key, responses to date indicate a strong desire by area farmers to "give the concept a try."

A detailed listing of specific tasks to be undertaken, a timetable for completion and identification of key staff follows. (While a Project's duration is for a 24-month period, HDS assistance is requested for 17 months. SEASHA will be responsible for continuing the Project beyond HDS's involvement.)

Time Schedule — Implementation Of
Demonstration Family Farm Project
Two-Year Period, 1 October 1983 To 30 September 1985

First Quarter: 1 October 1983 - 31 September 1985

Activities	**Staff Responsible**
—Meet with technical assistance providers and representatives of Farmers Home Administration to inform of Project scope, timetable and objectives.	President; Vice Presidents for Administration and Finance
—Recruit farm manager and farm family; provide orientation.	President; Vice President for Administration
—Develop record keeping and financial reporting procedures.	President; Vice Presidents for Administration and Finance.
—Design training and demonstration program for farm family and participating farmers.	President; Vice President for Administration

—Design evaluation instrument.	Vice President for Administration
—Notify interested and potential farm families and landowners of project timetable.	Vice President for Administration
—Notify Farmers Home Administration, Cooperative Extension Services and other related entities or project's implementation.	President
Begin land clearing.	Farm Manager, Farm Family
—Determine fertilizer needs.	Farm Manager, Farm Family
—Purchase farm equipment	Vice President for finance, Farm Manager, Farm Family
—Purchase seed and seedlings.	Vice President for Finance, Farm Manager, Farm Family
—Begin preparation of swine facilities.	Farm Manager, Farm Family
—Prepare and distribute quarterly progress report.	Vice President for Administration

Second Quarter: 1 January 1984-31 March 1984

—Complete swine facilities.	Farm Manager, Farm Family.
—Test soil.	Farm Manager, Farm Family
—Install irrigation system.	Farm Manager
—Complete land clearing and begin preparation for spring planting.	Farm Manager, Farm Family
—Prepare potato beds and other seedlings.	Farm Manager, Farm Family
—Locate and purchase bee hives.	Farm Manager, Farm Family
—Prepare compost beds to take advantage of organic fertilization.	Farm Manager, Farm Family
—Purchase swine breeding stock.	Vice President for Finance Farm Manager, Farm Family
—Implement training and demonstration program component.	President, Farm Manager
—Prepare and distribute quarterly progress report.	Vice President for Administration

Third Quarter: 1 April 1984-30 June 1984

—Purchase bees.	Farm Manager, Farm Family
—Plant clover as additional source of pollen for bees.	Farm Manager, Farm Family
—Plant all permanent crops—grapes, blueberries, blackberries.	Farm Manager, Farm Family

—Plant, gather and market spring greens.	Farm Manager, Farm Family
—Prepare land and plant peas, sweet potatoes and put in honey bees.	Farm Manager, Farm Family
—Begin swine breeding operation.	Farm Manager, Farm Family
—Install irrigation pipes and irrigate as needed.	Farm Manager, Farm Family
—Prepare and plant garden for home consumption.	Farm Family
—Prepare and distribute quarterly progress report.	Vice President, Administration

Fourth Quarter: 1 July 1984-30 September 1984

(This is the critical period when weather is dry and hot. Emphasis will be placed on adequate irrigation.)

—Irrigate crops as needed.	Farm Manager, Farm Family
—Harvest and market peas.	Farm Manager, Farm Family
—Harvest crops in home garden for freezing/canning.	Farm Family
—Prepare place for animals as desired for home consumption.	Farm Family
—Cultivate all crops and care for all animals as needed.	Farm Manager, Farm Family
—Prepare and distribute quarterly progress report.	Vice President, Administration
—Evaluate activities and modify as needed.	President; Farm Manager; Vice Presidents for Administration and Finance

First Quarter: 1 October 1984-31 December 1984

—Check all permanent plants; replace as needed.	Farm Manager, Farm Family
—Gather and market sweet potatoes, honey and other bee's products.	Farm Manager, Farm Family
—Plant fall garden.	Farm Manager, Farm Family
—Market feeder pigs.	Farm Manager, Farm Family
—Begin harvesting and marketing fall crops.	Farm Manager, Farm Family
—Plant strawberries.	Farm Manager, Farm Family
—Prepare and distribute quarterly progress report.	Vice President, Administration

Second Quarter: 1 January 1985-31 March 1985

—Complete harvesting and marketing fall crops.	Farm Manager, Farm Family
—Prune permanent plants and replant as necessary.	Farm Manager, Farm Family
—Prepare soil and plant spring crops.	Farm Manager, Farm Family
—Complete marketing of sweet potatoes.	Farm Manager, Farm Family
—Instruct family how to "pot" plant and cultivate ornamental plants for extra income.	Farm Manager
—Prepare and distribute quarterly progress report.	Vice President, Administration

Third Quarter: 1 April 1985-30 June 1985

—Plant summer crops—sweet potatoes, peas and continue swine breeding.	Farm Manager, Farm Family
—Continue cultivating crops/marketing feeding pigs.	Farm Manager, Farm Family
—Harvest and market blackberries.	Farm Manager, Farm Family
—Prepare trellis for grapes.	Farm Manager, Farm Family
—Check irrigation system for upcoming dry season.	Farm Manager, Farm Family
—Harvest and market strawberries.	Farm Manager, Farm Family
—Prepare and distribute quarterly progress report.	Vice President, Administration

Fourth Quarter: 1 July 1985-30 September 1985

—Carefully check grapes and blueberries for signs of ill-health. (These plants begin producing in third year.)	Farm Manager, Farm Family
—Harvest and market field peas.	Farm Manager, Farm Family
—Conduct detailed evaluation of demonstration; prepare written, final report on all aspects of project.	President, Vice Presidents for Administration and Finance
—Distribute copies of final report to appropriate agencies and determine follow-up.	Vice President, Administration

Dissemination and Utilization

The demonstration Family Farm will provide a direct demonstration and training experience to rural farm families and other poor landowners in a twelve-county area in Alabama. Further contact will be made with more than 10,000 poverty families that comprise the overall membership of the South East Alabama Self-Help Association, Inc. (SEASHA).

The project will publish a quarterly report on the farm's findings and progress to all participating farm families, SEASHA members, community-based organizations and state and federal agencies involved in agriculture. The farm manager, farmers and SEASHA staff will periodically appear in schools and on public service radio and TV programs to announce and promote the demonstration farm. National rural advocacy organizations will be notified and invited to include coverage of the project in their newsletters and magazines. Regular on-site training will be conducted for all interested small farmers and poor landowners at the demonstration farm.

Specifics agencies, groups and individuals who will be targeted for dissemination of the project's findings and progress include:

—Human Resources Development Center (HRDC)
—Farmers Home Administration — national, state and local offices
—Area High Schools' vocational agricultural programs
—Local 4-H Clubs and other such clubs
—Students enrolled in area schools of agriculture
—Area radio and television special interests programming directors
—Rural America and other such national publications
—Tuskegee Institute — School of Agriculture
—Auburn University — School of Agriculture
—Southern Vocational College
—Alexander City State Junior College
—Alabama State University
—Extension Service — Tuskegee Institute and Auburn University
—Area Congressional delegation
—Federation of Southern Cooperatives
—Federation of Southern Cooperatives; Epes, Alabama
—Small Farm Development Corporation; Lafayette, Louisiana

Staffing and Management

SEASHA's three administrative officers have, among them, over thirty-seven years' experience in community development activities and service to SEASHA.

SEASHA's current president was the initial organizer of the organization and still serves in the capacity of chief operating officer. The SEASHA vice president for administration has been with the organization since 1974 and, prior to the current position with the organization, served as secretary, administrative assistant and director of program development and personnel. The vice president for finance has been

associated with the organization since 1971 and, in addition to current responsibilities, has served as accountant and secretary/treasurer.

Combined, these three persons have had significant experience in developing, implementing, managing and evaluating both business and service projects which the organization has sponsored. Such experiences include personnel administration and supervision, accounting and financial controls, grantsmanship and analytical and statistical reporting.

The SEASHA President has been cited for outstanding achievements in rural community development. One such instance led to receipt of the coveted "1982 Winthrop Rockefeller Award for Distinguished Rural Service."

The following organizational plan (Chart 1) describes the staffing pattern and level or organization support for the proposed Demonstration Family and Farm Project.

SEASHA, Inc. has the land and facilities to contribute to a successful project and will provide the necessary management and administrative assistance. Prior research and data collection experiences assures a good evaluative and data reporting system to maximize the project's potential for replication.

SEASHA will provide the following facilities and resources to the Project:

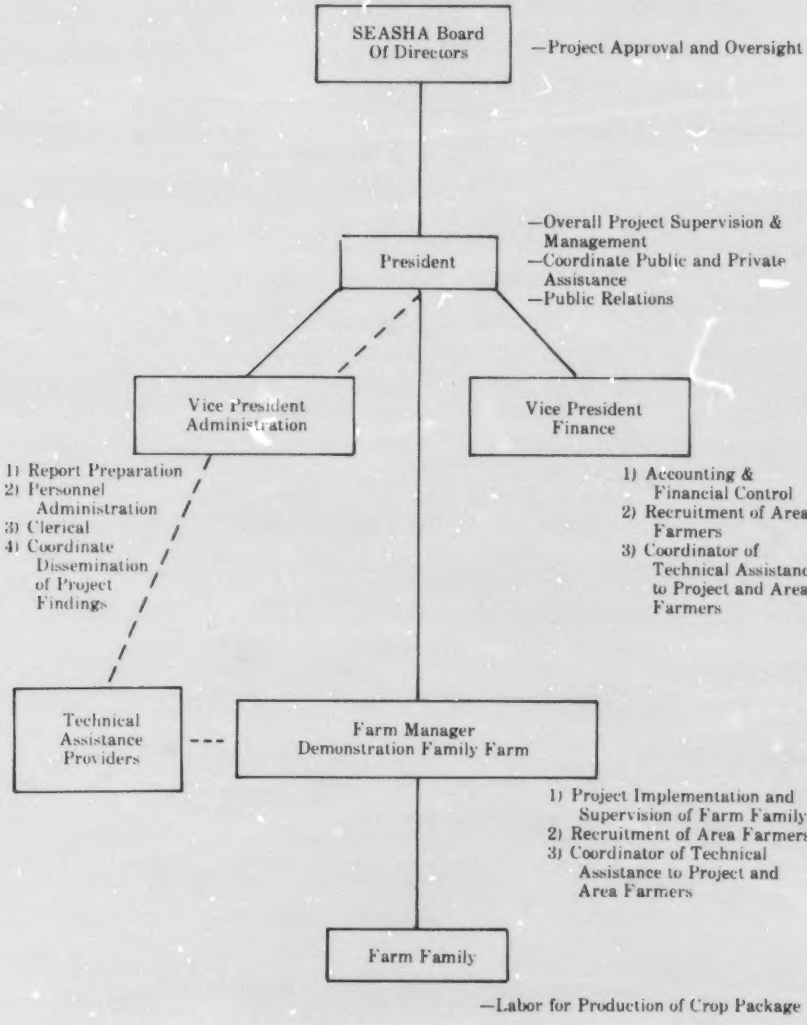
Resource/Facilities

Farmland (30 acres)
Irrigation water source
Livestock facilities
Domicile (4-bedroom house with attached greenhouse)
Supplies, printing, publication, office space, utilities
Grant Administration and Project Supervision
1 Tree Planter
1 Diesel Pump and Tank

The success of this Project will depend on an extensive collaborative effort among SEASHA, various schools, divisions and departments of Tuskegee Institute and the Cooperative Extension Service. As well, technical advice will be required and has been assured in the person of Dr. Booker T. Whatley.

Four types of specific technical assistance are required for this Project: (1) soil, plant and other agricultural specialists; (2) small farm operating and management specialists; (3) marketing of agriculture products; and, (4) management of grant and other income, personnel and financial administration. Technical assistance will be provided by or arranged for by the following outreach entities:

Chart 1 — Organization Plan
Proposed Demonstration Family Farm Project


SEASHA Board Of Directors
—Project Approval and Oversight
President
—Overall Project Supervision & Management
—Coordinate Public and Private Assistance
—Public Relations
Vice President Administration
Vice President Finance
1) Report Preparation
2) Personnel Administration
3) Clerical
4) Coordinate Dissemination of Project Findings
1) Accounting & Financial Control
2) Recruitment of Area Farmers
3) Coordinator of Technical Assistance to Project and Area Farmers
Technical Assistance Providers
Farm Manager Demonstration Family Farm
1) Project Implementation and Supervision of Farm Family
2) Recruitment of Area Farmers
3) Coordinator of Technical Assistance to Project and Area Farmers
Farm Family
—Labor for Production of Crop Package

Outreach	Technical Assistance
Schools of Agriculture and Veterinary Medicine, Tuskegee Institute, Alabama	Animal Husbandry
Department of Plant and Soil Sciences, Tuskegee Institute, AL	Crop Selection, Management & Harvesting

U.S. Department of Agriculture —HRDC/Cooperative Extension Service, Tuskegee Institute, AL	Field Technical Assistance, Distribution of Information and Publications
U.S. Department of Agriculture —HRDC/Cooperative Extension Service, Auburn University	Marketing
SEASHA, Inc. Tuskegee, Alabama	Grant Management, Program Administration, Demonstration Technical Assistance in Small Farm Operation

Results or Benefits Expected

Since 1920, there has been a decrease of 95 percent in the numbers of blacks in agriculture. At that time, 926,000 blacks were engaged in farming, the majority of which owned their own land. By the end of the 1990s, at the current rate of loss, there will be no black farmers, and no black-owned farm land in the South. However, more than 25% of U.S. blacks live in the South, comprising half of blacks in the United States considered poor. Of these, the majority reside in rural areas where agriculture, in one form or another, is the only means of employment.

Most importantly in the short-term, the survival of blacks in agriculture means employment for the 25% of the black population who reside in the South, through direct employment as well as the promotion of small business in marketing, wholesaling and retailing of small farm products. New opportunities for youth in rural areas will be created, impacting on the continuing growth of urban centers with unemployable, non-skilled youth. Additionally, the poor will benefit from the presence of alternative food sources which provide increased opportunity for self-sufficiency and independence from transfer payments for life's necessities. The need as seen by SEASHA is for black and other small farmers to adopt new farm technology. The first step is to establish a demonstration to eliminate all doubt, and encourage farmers to overcome their fear of failure, their fear of new innovations and encourage new farmers (young people) to consider the economic opportunity of farming as a small business enterprise.

All of the persons expected to participate in and benefit from this project are low-income. Each will have the opportunity to change his/her status through the success of this project. Independent employment for hundreds of farm families will be generated. Small farmers with only 25-30 acres under cultivation may secure income of $15,000 annually and more, while producing most of their own food. Smaller land-holdings—as small as an acre — can also yield marketable amounts of produce and provide most of the food required by a participating family, and many others in a rural community.

Equally as important as the direct benefits to Project participants, this Project will provide significant new evidence to the Department of Agriculture regarding the viability and role of the small family farm in

American agriculture today. Both the U.S.D.A.'s Structure Report and the State of Alabama's Farmer's Home Administration Policy Plan have proclaimed that more attention and resources must be devoted to the small family farm, if it is to survive and flourish. Moreover, both documents have confirmed that the current level of support for large farmers and large agricultural concerns has benefited these entities to the extent that they have reached (and surpassed) growth and consolidation beyond the size necessary to be efficient. Yet, neither the national or state U.S.D.A. office has entertained, proposed nor designed a model that would counter the direction of governmental support for agriculture from large to small farming operations. It is in this connection that the proposed Project can be most significant. If the project proves successful, it would become one model of effective and efficient agricultural production that revives, some may say saves, the small family farm and, at the same time, provides an alternative to escalating transfer payments and the dependency of far too large a segment of the American population—especially minorities—on them.

The Demonstration Family Farm project will be located on property owned by the South East Alabama Self-Help Association, Inc. (SEASHA). The 30-acre site proposed for the project is located approximately two miles from the corporate offices of SEASHA, Inc. in rural Macon County, Alabama. More particularly, the 30-acre site is part of a 350-acre tract of land which comprises the physical facilities of the SEASHA Agricultural Cooperative.

The target population for this Project is the rural, farm-based membership of SEASHA, Inc. This membership is dispersed throughout a contiguous 12-county area of southeast Alabama. Macon County, the location of the organization's corporate offices, is approximately equidistant. This area of the State is commonly referred to as the "Alabama Black Belt," describing the predominant soil type but also popularly describing the area in which a majority of the State's black population is concentrated. Of the 12 counties constituting the SEASHA target area, the population of three of them is predominantly black: Bullock, approximately 71%; Macon, approximately 85%; and Lowndes, approximately 78%. Moreover, the level of poverty (and its various adverse effects) far exceeds the State's average in all measures.

Seminar On Keys To Agricultural Development At The Local Level

Dr. Thomas T. Williams

Tuskegee Institute is the host campus for the Annual Seminar on Keys to Agricultural Development at the Local Level. The Institute is a recognized pillar of higher education with a demonstrated record of outreach

activities. The founder, Booker T. Washington, viewed the Institute's role as that of providing formal and informal education to individuals whose parents were primarily non-college attendees. The founder and his colleagues shared information with students and parents on ways to improve farm income and community life. Today, instruction, research and public service are the tripod functions of the Tuskegee Institute mission; and the combination of these functions mirror the unique Integrated Strategy for development as observed from outreach activities at the Institute. The outreach function is the utilization of education and research to improve the quality of life for people regardless of their educational level, social status or political party affiliation. The Human Resources Development Center (HRDC) is responsible for the coordination of the Integrated Outreach Strategy at Tuskegee Institute.

The greatest challenge facing mankind through the next two decades will be to produce adequate food for an expanding world population. This challenge demands a dedicated effort by the Federal Government and the State Cooperative Institutions and other colleges and universities to expand international food and agricultural research, extension, and teaching programs.

The MOU is the vehicle by which OICD facilitates and strengthens the ability of the Cooperator to become involved in mutually beneficial international agricultural activities, facilitates joint program planning and mobilization of persons and other resources, facilitates cooperation in carrying out international programs, and encourages the exchange of information between the Cooperator and OICD on technical exchange projects.

This supplemental Cooperative Agreement provides for the participation of Tuskegee Institute with OICD in presenting the Seminar on Keys to Agricultural Development at the Local Level, and is in conformance with the Legislative Intent of Understanding to strengthen the institution's ability to participate in international agricultural development projects.

Participants in the seminar will develop knowledge and skills to (1) understand the interaction between technical agriculture and socio-economic development; (2) identify key factors in the development of agriculture; (3) analyze the process of agricultural development in a community and apply the knowledge to home-country development. Thus, participants should be better qualified to participate in and lead agricultural development activities when they return to their countries.

The Cooperator will provide experienced senior staff to accept responsibilities for the design, organization, conduct, and evaluation of the Seminar on Keys to Agricultural Development at the Local Level.

This two-week program enables participants to examine the agricultural development process by identifying and analyzing key social, economic, and political factors and how they interrelate. It is highly experimental, having illustrative field trips, individual and group work, and home country planning. By capitalizing on the diversity of its partici-

pants, the course offers a rare opportunity for cross-discipline consultation to adapt course work to the home country realities.

Methods used in training participants will be consistent with adult learning theory and will reflect an awareness and consideration of cross-cultural differences.

OICD will cooperate with Tuskegee Institute in continuing refinement of the course design based on previous evaluations. OICD will also advertise the course and coordinate the placement and registration of foreign participants in the course by working directly with national and international sponsors and host country governments. OICD will provide administrative and logistical support to participants in such matters as per diem, travel, insurance, and membership in professional societies.

HRDC will contribute training facilities, equipment and materials necessary for the successful completion of the course and will provide access to campus facilities such as libraries and cafeterias and will make available opportunities for interaction with American students.

A major prerequisite to community development is an informed and participating citizenry. It is generally recognized that government at the local level is closest to the citizens and can provide an effective mechanism for direct participation. Education, research, production and technology transfers came in for major discussion by seminar participants.

It is an expected fact that most developing countries do not have the resources or expertise for community development found in the United States; however, most developing countries have the potential to expand the quantity and quality of these "keys."

The development of human resources potential requires a plan that includes formal and informal education. The generation of scientific knowledge and the dissemination of research results to "users" are major components of a community developmental strategy.

Development constraints that people face in many developing countries interfere with agricultural production, extension and marketing. During the planned seminar, participants observed tested strategies utilized by Tuskegee Institute in its community development thrust.

Finally, each seminar participant submitted a written report (500 words) to the seminar coordinator. The report addressed the relevancy of the "Keys" to situations in his/her country. In addition, each seminar participant made a ten-minute summary report to the group and responded to questions from other participants.

The Coordinator recommends:

—An increase in the number of seminar participants to at least twenty.
—That the lead trainer share information with each participant early in the planning stage.
—That the program specialists make it clear to seminar participants what the requirements and conditions are for selection.
—That the participants be identified at least two months before the seminar.

The course objectives were accomplished. However, we could have easily accommodated more participants. The resources of the Institute would have been more effectively utilized with a larger number of participants.

Some Significant Learning Experiences and Their Application as Reported by Seminar Participants

Example 1

The seminar convened on August 14-27, 1983, at Tuskegee Institute. Several areas of exposure to the participant's learning experiences were:

Extension

Extension tours were made to various counties served by HRDC/Cooperative Extension at Tuskegee Institute. Farmers and operating county officers were visited. The aim of the Cooperative Extension Program is to reach the poor or low-income farmers. This approach is enforced through careful program planning, based on needs of the community, through the Extension Council meetings. The citizens' use of volunteers in the Extension Service is commendable for meeting community needs and for more local decision making. More funds should be available to ensure not only that services are carried out efficiently, but also to ensure continued and persistent improvement of farm income, staff training, and welfare that will increase employment opportunities either on farms or structures thereof created.

Spending

Tuskegee faces a problem of unemployment in that only a few job opportunities exist in the Institute and private and federal offices. Furthermore, there is a lack of large industries and most farmers are part-time; this aspect may not seem realistic, but it is quite clear that institutions must have environments conducive to employment and procurement of production in both business and agriculture. Indeed, the Economic Development Technical Assistance Unit (EDTAU) is an ideal HRDC component to enhance production surplus that could be channeled to leisure and spending as a whole (potential surplus).

Religion

The structure of the federal, state, and local governments is ideal, for it gives a lead way for local participation in developmental aspects so that citizens feel that they are a part of the program, and that programs are not imposed upon them. The rural development approach aimed at low income "rural areas" is commendable; and both the enumerating of equitable and resource distribution in aspects of production and the decision making and managerial capabilities are geared to people who need them. The government should ensure that the infrastructure system is functioning well.

Research

Both basic and applied research are necessary for both long- and short-term problems of the farmers. Applied research conducted by Tuskegee Institute is ideal and compatible with the needs of the clientele.

Production

The diversified small farm plan is worth adapting, especially in Kenya where low income due to poor production and choice of enterprises does exist. The principles for this plan are adaptable with some adjustment, depending on the social situation. (SEASHA has many of the features referred to in this statement.) The "U"-pick aspect may not, however, apply because of infrastructure over transportation problems, but a way of ensuring stable markets is envisionable.

Human Resources

Any developmentl or concept should aim at improving the clientele supposedly served. Both advantaged and disadvantaged citizens of any nation should be educated, trained and updated on various production and national activities that contribute to the welfare of the whole nation. The Job Corps Center at Tuskegee Institute is a worthwhile program in ensuring that disadvantaged citizens return to the production section of the economy and contribute effectively as assets rather than liabilities. To cope with the technological advancement, development and management of human resources should ensure an environment conducive to realization by individuals of their fullest potential in their respective careers. Both amenities infrastructure and procurement of production inputs are vital.

The seminar has been motivating and challenging. The outline of issues could not be narrated in depth in this paper, but the exposure and the learning experiences on the whole would indicate aspects that are deemed necessary or key to rural development. The resource persons were knowledgeable and amicable and were willing to discuss informally with the participants outside the premises of the seminar.

Example 2:

An outline of the experiences is summarized under the following headings:

—Outreach thrust by different disciplines at Tuskegee Institute
  —School of Nursing
  —College of Arts and Sciences
  —School of Veterinary Medicine
—Linkage between research and extension
—How a small farm plan can be used in a rural development strategy
—Field experiences
—Sharing of information with other participants.

Outreach Thrust by Different Disciplines

Tuskegee Institute has outreach programs for different disciplines. Each of these has organized programs which are geared to the commun-

ity at large. The joint efforts of the different disciplines help in different ways to improve the quality of life of the people they serve. This is an important concept and a very useful strategy in community development. This concept can be very effective and useful if utilized in The Gambia.

The Gambia has no university; it has Gambia College, which graduates students after three years of training in nursing, teaching, agriculture, public health, and animal health and production. Different disciplines can carry outreach programs, but many are not only limited to providing training for their students but also conduct viable projects to help improve the community. The outreach programs at the college can even help to provide useful practical experience for the students while they are still in college.

Linkage Between Research and Extension

The research unit at Tuskegee Institute, like those at many other institutions in the states, has a very good linkage with extension in the real sense of the word, a situation unlike that in The Gambia. The research unit at Tuskegee Institute, after carrying out its research, continues to interpret data which are made available to an extension committee to be translated for use by the public. This facilitates the usefulness of conducting research. This is lacking in The Gambia. The Agriculture Department in The Gambia has a national research unit which has been conducting research. The extension bulletin was reviewed last in 1971 because there is no interpretation or translation of the findings of the research work done since then. The general comment by the public is that Agriculturists spend all their time on research without any progress. I wish our research unit and extension service could work more closely, as they do at Tuskegee Institute, so that some benefit would be gained from the national funds used on research.

How a Small Farm Plan Can be Used in a Rural Development Strategy

The program in the United States is geared to helping the small farmer diversify his production to help eliminate competition between him and the large farmers. The guidelines set for this are:

—Provide weekly income
—Provide full employment
—The farm you pick must be located on a paved road 25-60 miles from a population center, with a good soil and a source of water; soil must be well drained
—Compatibility components
—Regular clientele membership club
—Elimination of all vertigoes of the middleman
—Production of what the clientele demands

These farmers are encouraged to produce for the local market only, while the large farmers produce for distant and export markets.

The general concept of the plan perceived is a balanced farming system where the farmer produces a little of everything so that he satisfies the food requirement of the family, with surplus to sell to the local market. The concept is one that can be applied in The Gambia, but not in toto. That is, certain aspects of the plan will not be applicable because of reasons such as economic , cultural, literacy level, communication problems, lack of adequate water supply, short growing season, and low level of mechanization.

More than three-fourths of the farmers in The Gambia are small farmers who produce food for the local market and for export. Therefore, there will be a differentiation in goals. However, as has been stated before, employment of the general concept of balanced farming will help improve the quality of life of our farmers in many ways.

Field Experiences

We visited several farms, both large and small. Both were impressive in their own ways and both, it was discovered through discussions, play significant roles in the development of the country and are therefore needed.

The Gambia, in order to improve her agriculture (very vital), which is the only source of income, needs both large and small farmers. At the moment, most if not all of the farmers are subsistence farmers with very small holdings. It would help at this point to have some industry in the country that can absorb some of these small farms so that the farmers can have larger holdings which might (with mechanization) help to elevate them from the subsistence level.

Sharing of Information with Other Participants

The mutual sharing of information was highly beneficial. During our leisure time, we discussed various suggestions and shared our views on aspects of farming operations that could be improved, as well as what had successfully taken place, when and how. For example, the problem of communication in Tanzania is minimized by forming Farmers Cooperatives that help in the marketing of the produce of the small farmers. This is something that is not done in The Gambia, but needs to be done considering the marketing problems of our vegetable farmers. Presently only crop (export) farmers have such an organization.

Example 3:

The Seminar was aimed at achieving three major objectives: (1) understanding the relationship between technical agriculture and the socioeconomic development; (2) gaining knowledge on how to identify the important factors in the development of agriculture for communities with limited resources; and (3) analyzing and understanding the whole agricultural development process of a given area.

Quite a lot was learned with respect to the HRDC/Outreach Program, which covers different aspects of "Keys to Development." The involvement of an academic institution to serve the people wherever they are (especially those who cannot stand on their own) surfaced as a very

important commitment to the whole issue of community development. Moreover, not only the commitment, but also the integration of effort from different fields and specialists—all directed toward rural communities—has an excellent impression on this approach to their development.

The first of these facets was Agricultural Extension. The methods used by the HRDC/Cooperative Extension Service of Tuskegee Institute are quite appropriate to the situations of the communities involved. The underlying philosophy of this component of HRDC is to motivate and assist clients to overcome limitations of environment and limited resources. However, most important and foremost is the provision of education and technical assistance to communities that would not otherwise be privileged to such information or service. For example, the underprivileged farmers are given animal stock for swine or dairy production by the HRDC Extension staff which would otherwise be difficult to obtain. Farmers are obligated to sign a contract and pay the equivalent value of animals as set by the program. Moreover, the use of demonstrators and extension community leaders and a strong one-on-one contact has helped the farmers very much. As a result, the kinds of arrangements utilized by the HRDC Extension Service seemed to work in a practical sense.

The second facet identified as a "Key to Development" was the area of research. Research conducted in crop production, animal science, nutrition and sociology has been important to low-income people—people from the small farms and rural areas. Animal research has led to advances that have brought more profitable beef and dairy production. In addition, food and nutrition research have been emphasized through major commitments of education programs and health surveys. The surveys have found inadequate diets for a wide range of the population in the limited-resource communities. The firdings have been important because they identified the problem areas where more efforts were to be directed.

The third factor was production and marketing. In this "key" it was emphasized that production must be organized in a feasible way. The main emphasis was on developing the limited-resource farmer. To attain this goal, it was found that limited-resource farmers must avoid producing the same crops as their large farm counterparts. To do this, they must produce or engage in high-valued enterprises. These farms or enterprises must meet the following requirements:

—Provide weekly income
—Have compatible components
—Provide full employment
—Produce what is demanded on the market and not what the farmer wants. To show this, a diversified small farm plan for an area in Tanzania was developed (see attachment).

The areas identified as "Keys to Development" included the participation of the government, spending for investment ventures, and religion.

Last, but not least, was the area of Human Resources Development. This was achieved through Community Education, Youth Advocacy, Small Business Assistance, and Job Corps, which is aimed at assisting young people through intensive programs of education, vocational skills training and other services. Most of these were high school dropouts who came from economically deprived families. All of these "Keys," including community development through improvement of transportation, housing, water and sewage systems, were identified as very important for development of limited-resources rural communities.

In summary, however, the seminar did not attempt to prescribe what is needed to achieve agricultural development in any specific country, but emphasized development principles involved. Thus, Tuskegee Institute with its long history of outreach activities provided an excellent opportunity to visit rural areas and observe the interaction between agriculture and individuals serving in different capacities on the whole issue of rural development.

Example 4:

Agriculture is the main source of income in many developing countries and small farmers are faced with problems of low yields, land development, marketing, and so forth. This seminar was undertaken by USAID to help foreign students enrolled in American Universities to identify, analyze, and clarify the process of agricultural development in a United States rural community. With this background, on their return home the students will be able to identify the important factors contributing to the development of a rural community presented in this seminar; these factors or elements may be relevant or could be adapted and applied to the conditions of their respective countries.

The activities included classroom discussions, slide film presentations, and visits to several farms. Activities focused on the following areas as "Keys to Development":

—**Extension**

From August 16 to August 19, we visited Dallas County, Bullock County, Lowndes County, where we conferred with farmers. Questions of dialogue were:

—The efforts made by extension at Richardson's Farm (Orville, Dallas County)
—Identification and recruiting of volunteers to help the rural communities visited
—Integration of activities achieved at the county level
—Identification of means of disseminating information accumulated

—**Spending and Religion**

August 20-21 were spent at the Montgomery Mall and the Episcopal Church. These two "Keys to Development" do not seem to be very important. The church we visited tends to be political.

—**Government**

Government as a "Key to Development" was presented by Mr. Frank Toland, Professor of History at Tuskegee Institute. In his lecture, Mr. Toland explained the American system of government. He pointed out that the government can be involved in community development by:

—Attracting industry to the county level. This can be done by improving security systems, school systems, skilled labor, etc.
—Improving social programs (care of poor people, etc.)

—**Research**

Research as a "Key to Development" was viewed at the following levels:

—Trials on the field: Crop production trials, inter-cropping, screening of pests and diseases, and introduction of new crops and cattle husbandry.
—Division of Behavioral Science Research: This area concentrates primarily on basic research. It should be noted that the guidelines for its research program(s) do not come from the community but mainly from the organizations or firms providing funds for research purposes.

—**Production and Marketing**

August 25-26, lectures presented by Dr. B. T. Whatley. In his lectures, Dr. Whatley focused mainly on his plans for the small farmers (20-200 acres of land). He also emphasized the diversification of crops on small farms and the quality of products which may enable the small farmers to avoid competition with the big farmers. According to Dr. Whatley, to be successful, the small farm(s) must meet the following requirements:

—Provide weekly income
—Have compatible components
—Provide full employment
—Be located at least 25 to 40 miles from a population center
—Have a regular clientele membership club
—Eliminate all vertigoes of the middleman
—Produce what the clientele demands

—**What Can be Learned from the Tuskegee Institute HRDC Outreach Strategy that is Applicable**

Most of the "Keys" studied at this seminar can be applicable to Mali, but with a lot of caution.

—**Extension** — Extension is one of the most important "Keys" to development in my country. In my country it has activity in these areas: agriculture, cattle husbandry, nutrition, etc. In the image of what we have seen and learned at the county level, we can try to integrate the actions of extension so that the interrelationships give tangible results.

—**Government** — Government is a "Key" that is very difficult to adapt since the government has the power to determine the areas of action according to the funds allocated to a particular community.

—**Research** — At Tuskegee Institute, the guidelines for research are partly dictated by the community problems and partly by agencies funding the programs. In my country, the research program is strictly directed by the community problems. However, efforts can be made to include funds for research in any agricultural project financed by outside organizations.

—**Production and Marketing** — Out of the seven principles cited by Dr. Whatley in the development of small farms, only the first three can be adapted and applied in my country. The rest may not be requirements for the success of small farmers.

—**EDTAU** — The use of computers in our rural communities requires considerable caution. However, to speed up some administrative business at the district level, computer technology can be applied.

Training centers similar to Job Corps Centers have been developed in Mali, but the number of participants is still limited.

The seminar was very useful. Its success can be attributed to the instructors who shared their experiences through discussions and visits to the farms.

HRDC/Economic Development Technical Assistance Unit
Mr. Donald Lawson, Director
and
Ms. Debra Tazewell, Assistant Director

The HRDC/EDTAU focuses its program of technical assistance to minority businesses. The program provides (1) information relative to business opportunities; (2) the necessary technical assistance to succeed in business; and (3) assistance in starting new business developments. The HRDC/EDTAU planned, developed, and implemented a comprehensive economic development strategy to assist businesses in the target area. The specific objectives of the EDTAU are: (1) to lower unemployment levels; (2) increase the size of family income; (3) promote capital investment among minority businesses; and (4) accelerate the participation of minority entrepreneurs in the business mainstream of the state.

The structure of HRDC/EDTAU and its relationship to the overall administration of the Institute has a direct bearing on its effectiveness and its ability to function as a significant component within the Human Resources Development Center. The EDTAU will be a viable component of HRDC in providing technical assistance to businesses, communities

and developing organizations. The Unit's emphasis is economic development; however, it was evident that an assessment had to be done of the needs of the business community not only in the planning and decision but in the execution of assistance. The EDTAU viewed the problem of the small entrepreneur in the rural south as being quite different from those of the urban entrepreneur. With this in mind, the Unit took a comprehensive look at the economic and social elements that plagued the small entrepreneur. Social elements refer to motivation to work, enhancement of business functions and job training, characterize some of the problem areas of the small entrepreneurs which may identify needs that could become concerns of the HRDC/EDTAU. The Unit staff accepted the above needs as a challenge which is reflected in the program objectives for which the Unit came into existence: (a) to provide technical assistance to businesses, (b) to strengthen already existing minority owned and controlled business enterprises, and (c) to enhance the opportunities for socially and/or economically disadvantaged persons to own successful business enterprises. The Unit is aware of the total impact of both minority and small business throughout the Black Belt countries and is specifically challenged to probe the reasons for their lack of success and to construct programs to aid them in improving the potential for success.

The Unit is a component of the Human Resources Development Center and supported by the Economic Development Administration (EDA), United States Department of Commerce.

The HRDC/EDTAU has designed and implemented a planned program with clearly defined goals, based upon the recognition of the need to improve the socio-economic status of the service area through business ventures. This plan has a dual purpose: (1) to meet the needs of our clientele in the rural business community; and (2) to achieve the goals of the Economic Development Administration.

The technical assistance provided by the Unit covers a broad spectrum to meet the intrinsic needs of minority businesses. The Unit coordinates business development workshops to disseminate information and encourage participation relative to the current and future business world. The Unit offers such assistance as management and technical assistance from a one-on-one approach. In addition, the Unit acts as an entity for the collection and dissemination of business information, establishing a resource library for the business community.

The Unit has been involved in such outreach activities as recordkeeping for small businesses, conducting feasibility studies, assisting in the development of business plans and loan-packaging for clients interested in securing loans. The Unit has also provided computer training and management counseling. A large percentage of the Unit's requests revolve around the function of recordkeeping and preparation of business plans.

Profile of Service Area

The HRDC/EDTAU's service area is traditionally referred to as the

Black Belt Counties of Alabama (Figure 1) which consists of eleven counties located in central and southeastern Alabama. However, HRDC/EDTAU has identified Macon, Bullock, Lowndes and Montgomery as counties deserving major attention even though the service area extends the Black Belt. We will concentrate our efforts to identify current needs and problems within these four (4) counties and develop strategies to best meet the needs of the business community.

Macon, Montgomery, Bullock and Lowndes counties encompass almost 2,746 square miles, with a population of 247,716. Within the confines of the geographic area there is only one significant urban area, Montgomery; the remaining area is considered rural.

Historically with the exception of Montgomery County, the service area has been beset by a multitude of social and economic problems which have contributed to rapid migration, widespread unemployment and, in general, low economic growth compared with other areas of the state. Statistically, the service area has become some of the poorest in the United States.

In order to understand the growth potential, a knowledge of certain socioeconomic characteristics such as population, income, education must be addressed. These factors are important because they reflect the environment and ability of an area to offer opportunities for minority advancement. Also, any problems associated with those factors can be identified and steps taken to alleviate them for the benefit of society.

An examination of census data (1980) shows an average of 11.3% migrated from the target counties. It can be noted that there is an average of 10.8% unemployment per target county. Also reflected are shifts from the rural area to towns, especially those that are able to provide jobs, municipal services, better housing, educational and cultural facilities. The large decreases in population give impetus to many serious and adverse effects on all segments of society and the economy of the region. Population loss claims many of the best educated and best qualified people who would otherwise form the work force and economic base of the area. As a result, many cities and towns have suffered a diminishing tax base which makes providing municipal services more difficult and industrial activity even more so. Needless to say what happens to other potential businesses that spin off sustained economic growth.

Income reflects the vitality of the areas economic activity and development. Income also reflects the ability of the region to support needed services and facilities. More importantly and especially for minority economic development through commerce, income determines the potential for local capital investment and influences the demand for goods and services.

Low income levels are one of the prime reasons that most counties in the service area are classified as redevelopment areas. Income in this area has increased considerably between 1970 and 1980, but still $4,000

per year less than the median family income for the state. The median family income for the region is $12,456. All of the other income divisions recorded an increasing number of people making larger amounts of money per year, yet an average 28 percent of the region families are still earning income considered to be below the poverty level.

Increased emphasis on education is having an effect on the target area. There was an increase in the number of years of schooling achieved by the population 25-years and older between 1970 and 1980. The number of high school graduates increased from an average of 37% to 51%, a difference of 14%.

Education is an important factor in growth and development. A well-educated population is generally more able to obtain better jobs and afford better housing. Also, the changing technological society makes an adequate education a necessity. Education also affects the quality of labor force and is closely observed by industries seeking new locations.

All the statistics that have been discussed indicate a need to revitalize the economy of the target area. The minority entrepreneur, by taking advantage of existing potentials through innovative thought and cooperative effort, can gain substantial growth in the macroeconomic development of the Black Belt Counties of Alabama.

Assessment of Service Area

Because of the abundance of forest and agricultural lands in the area, agriculture has continued to gain importance as the service area's principal economic product, as such, lands owned by minorities could form the equity base for greater minority participation in a developing area. Farm land represents one of the most important capital resources in minority hands. Collectively or corporately utilized, the real potential for using minority-owned land to leverage capital for business development is obviously advantageous to increasing minority participation in commerce.

At the same time, the full agriculture potential, if developed, will have a profound effect on the entire economy of the service area. Agriculture development will require diversifying and producing a wider variety of crops. To achieve the greatest economic effect, processing and marketing facilities would have to be developed. The production of commodities for the fresh food market and canning outlets offers promise if irrigation can be utilized. The production of fruits can also be explored.

The importance of forestry has become a greater economic agent in past years. New technology that keeps the woodlands in new trees while mature trees are harvested shows indications of long-term growth in this industry. Opportunities exist for logging contractors and brokers as well as producers. Two new mills that process wood products have announced new plants or expansion in the target area just this year. Evidence indicated others are showing interest in the area.

The process of producing finished consumer goods from raw materials (or the business of manufacturing) in our complex industrial society

has greatly different features from other businesses. Foremost, bigness is usually a necessity. Smallness of size may be advantageous in some businesses, but in manufacturing it may be an insurmountable obstacle.

Manufacturing requires the highest level managerial skills and technical knowledge. Small firms with small outputs simply cannot afford this kind of talent. Although management and technical skills are greatly important and benefit the large firms, these large firms also enjoy other economics of scale such as volume purchasing or materials and supplies, greater usage of utilities, and shipments of materials and supplies in carload lots, all of which greatly reduce cost.

Because of the factors, competition in manufacturing is severe. The manufacturer faces the largest, most experienced, most efficient and most knowledgeable producers in the country when he enters the market place.

It would be ludicrous to assume or attempt to convey the idea that many splendid manufacturing opportunities await the aspiring minority entrepreneur. With a few exceptions, it just is not possible.

Resources could best be utilized in assisting those already engaged successfully in the manufacture of a product, and/or assisting in the development of grown or spin-off manufacturing. The manufacturing endeavors can usually be established with much less capital, talent and other resources.

It should be fairly obvious that as per capita and median family incomes rise in the service area and as industrial growth occurs, opportunities for wholesale and retail trade will increase proportionately.

Wholesale and retail trade is the fourth largest employer in the target area. In many towns and cities community shopping center and minimalls have been and are under construction. These retail facilities are good indications of area growth. They indicate potential, increased buying power and changing composition in the population, with a larger proportion of young adults. This would increase the demand for household appliances and goods, furniture, clothing, automobiles, recreational and entertainment establishments. One problem that must be overcome is the drawing of potential customers back to small town shopping facilities.

An area of obvious opportunities exists for minority entrepreneurs in the service industries. These services could be professional such as engineers, architects, accountants or artists. They could be engaged in establishing hotels, recreation areas, museums, or art galleries, and personal services such as barbering, cosmetology, laundry and photographic studios.

A large number of minority entrepreneurs are successfully engaged in businesses such as: auto and/or body repair, miscellaneous repair service, janitorial services, security service, employment service and consulting firms, to name a few.

In view of the growth projected for this industry, there are a number of factors about it and about minority entrepreneurs that should make

entry more successful than entry into other endeavors such as manufacturing.

Many of the groups of the service industry do not require the technical education combined with significant operating experience that is needed in manufacturing. In the service groups that do require experience or technical knowledge, the minority community now has a relatively large number with appropriate background education.

The management capabilities for servicing firms are more general than specialized, as would be required in manufacturing or retail trade. Also the capital required to establish many service businesses is relatively small when compared to manufacturing and even to retailing operations.

Opportunities for Economic Growth

The target area of consideration for service firms is ripe for economic growth and minority entrepreneurs will share extensively in this growth because of the following reasons that we see as advantages or economic assets in the area.

—Financial conditions of the counties in the target area are generally good with low bond indebtedness.
—Active throughout the area are planning and development commissions, and county industrial development groups.
—Adequate financing is available through local banks (many of which are now under bank holding companies)—The Small Business Administration, the Farmers Home Administration, and other entities.
—Good potential for developing wholesale and retail trade.
—Abundant forest resources.
—Available higher education facilities at Montgomery and Tuskegee, as well as a large number of technical schools.
—Significant growth in personal disposable income.
—Improving educational levels.
—A good geographic location, enhanced by adequate transportation means within and leading out of the area.
—An abundant supply of surface and ground water placing the area at a competitive advantage among other areas in attracting water using industrial and recreational development.

As with most areas the region has certain economic liabilities which could, without receiving proper attention deter economic growth and development. These problems are:

—An apparent slowing of economic growth during the past two years.
—A heavy dependence on too few cities within the area to provide jobs, many of which are military, government or institutional.
—Although improving, an insufficient diversification in the manufacturing base.
—A loss of potential retail dollars to other areas.

—A labor force containing a high proportion of persons not adequately skilled or educated.
—A total out-migration of persons, many of whom are in their young productive years.
—Lack of sufficient agricultural labor and long-term, low-interest capital for farmers.
—Insufficient diversification in the agricultural base.
—Full market and manufacturing or processing of finished products not being exploited in the forest resource industry.
—Decreasing competitiveness of several of the central business districts, which leaves a small share of total sales for the county.

There are reasons to be optimistic about the economic growth of the target area as well as an expanding role for minorities in the business. The question is, how will this growth occur? Local wages, earnings from farming operations when increased by large business and industry should give rise to a surplus of wealth. This surplus can then be utilized to establish more businesses and industries that are locally owned and act as further economic catalysts.

Of course, the opportunity to go into business is an option open to minorities along with other citizens. However, before this option is taken, any potential minority entrepreneur should carefully evaluate the several factors that are reshaping the environment in which he will have to operate.

Whatever form or organization a business person chooses for his operation, several conditions must be realized. First, a potential entrepreneur must perceive a market for his product or services. Next, steps must be taken to translate the idea into a practical production process. Third, technical and management skills must be sufficient to establish and operate the business. Financial resources, especially equity capital, must be available or acquired. Finally, the person must have the know-how to find and maintain customers in the face of competition. As we all know most minority owned firms are deficient in all or most of these vital requirements. This lack of mastery over management and technical know-how and with the increasing availability of credit there will be excellent opportunities for potential and established minority business persons to participate in the future growth of the Black Belt and surrounding areas.

Service Area Clientele

The HRDC/EDTAU has developed the following guidelines in selecting the target area clientele that will qualify for assistance.

The clientele:

—must not have the intent to relocate any establishment from one area to another thereby resulting in a transfer of jobs causing unemployment at the location where such work was previously performed.
—must be a minority owned/managed operation.

—should not operate a business that makes in excess of $100,000 per year in profits.
—should not operate a business that employs more than 20 employees.
—must be located in Macon, Bullock, Lowndes or Montgomery counties.
—must desire assistance in day-to-day business operations (accounting, management, marketing, bookkeeping, etc.), loan packaging, soil conservation services, survey construction and/or desire knowledge of the potential procurement departments and other related business functions. In the future, the HRDC/EDTAU plans to participate in the total construction of feasibility studies; however, we presently update and construct segments of feasibility studies.

Moreover, the HRDC/EDTAU includes in its definition of clientele government, and civic organizations. We realized that the above entities may or may not adhere to the guidelines set for profit making entities; however, it is our belief that any assistance given to an entity that functions to benefit the public or community is well worth the effort and in line with our overall objectives.

In light of the above, the HRDC/EDTAU will offer technical assistance to small businesses, government, and/or civic organizations that operate within the EDTAU's terms and conditions "to the extent of it capabilities."

Personnel Management

Resource persons have been identified on campus in such disciplines as business, law, finance, marketing and accounting. In addition, through the business intern component, students are provided opportunities for experience in the world of management. Periodically, consultants are employed to assist in an advisory capacity.

The HRDC/EDTAU's management and standards of performance are being formulated for print to add concise direction and clarification of program operation. This management thrust will reflect the Institute's Policy and Procedures.

Work agreement guidelines between HRDC/EDTAU and potential clients are being formulated to insure that periodic monitoring of program implementation and progress can be evaluated. The Unit will adhere to the Privacy Act, therefore, a fully recognized policy will be established to treat all client business and financial data as confidential information. In addition, the HRDC/EDTAU will develop a system to identify potential clients and screening procedures to insure assistance only to appropriate clients. This will enable the Unit to provide a thorough and comprehensive individual service plan, establishing a systematic linkage of intake referrals and output of service to the business community and industry.

Types of Assistance

The unit offers a one-on-one comprehensive and coordinated campus-wide outreach program focusing on business and community develop-

ment. Listed below are some major areas in which the Unit concentrates its efforts:

—**Business Candidates**

The Unit will continue its current efforts to make business candidates aware of the program and the assistance which it offers. Use of news releases, radio spot announcements of public service meetings have assisted in publicizing the availability of the Unit. The staff contacts within the community in which they reside have created a channel for providing both a formal and informal level, and awareness of the Unit.

—**Collection and Dissemination of Business Information**

The Unit subscribes to a number of business periodicals and local newspapers. These materials are displayed in the Unit's Office. The Unit is on the mailing list of procurement offices at the federal, state, county and municipal levels. Such mailings provide opportunities to bid on the supply of material and services to these agencies. In addition, through contacts in the business community, information with respect to loan opportunities, bonding information, and the availability of business training is disseminated to the Unit clientele. A bimonthly newsletter mailed to all known minority businesses in the area provides information on business opportunities. The Unit has established a library of relevant pamphlets, brochures, and other materials to assist the entrepreneur in daily business functions. The Unit plans to continue its present efforts to collect and disseminate business information to increase the extent of its efforts and the number of individuals reached.

—**Management Services and Technical Assistance**

The term "management services and technical assistance" is broad. For purposes of the HRDC/EDTAU, Management Services and Technical Assistance will include:

—Steps to assure that the business has an adequate accounting and control system, as well as the internal or external capability to maintain and use the system effectively, especially for providing timely and adequate information to businessmen, government tax-related agencies, suppliers and customers as required.

—Steps to assure that the business has adequate technical capability in such areas as marketing, personnel management, production processes, legal affairs, purchasing, distribution, and financing, or that the business can obtain helpful assistance as needed in these and other technical areas.

—Steps to assure that the business has adequate scheduling, financial and production control, organization, and motivation, or that the business can obtain helpful assistance as needed in these and other management areas.

—Assist clients in the procurement of contracts for either services or construction.

—**Business Packaging**

This function of the Unit will probably be the most challenging aspect of the operation. To take an idea and the enthusiasm which accompanies it and translate it into a realistic plan for entering the business world provides a real challenge to the experience and business knowledge of the Unit staff. Nobody wants to put an individual into business to see that individual fail. Neither does the Unit Staff wish to be accused of dragging its heels on assisting a client. At times, the line is very fine. Once the client has been provided an honest appraisal and he wishes to proceed, the Unit Staff lends its wholehearted support. As the Unit acquires age and experience, its contacts among the banking and business community will prove invaluable in helping the client move forward with his project.

—**Integrated Technology Transfer**

An IBM Displaywriter unit was installed on a lease purchase arrangement in the Central Office of the Human Resources Development Center. The Displaywriter unit will undergird the outreach business thrust of the center as it carries out its function in the Alabama Black Belt Counties. The Displaywriter unit will serve as an operational mechanism to initiate and expand an informal private business linkage between the HRDC/EDTAU and the International Business Machine (IBM) Company. the three major operational components that will foster the linkage are: (1) staff training; (2) need assessment of the business clientele; and (3) delivery of technical assistance to the business community.

—**Institute's Relationship**

Tuskegee Institute has a history of providing outreach services in the community and the administration has a record of strong support for outreach activities. The HRDC/EDTAU has developed in very early stages an excellent working relationship with schools and divisions on campus with emphasis being placed on establishing a linkage with such disciplines as the Schools of Business and Agriculture. Dialogue has been very productive. The School of Business has established a cooperative working agreement and other divisions have assisted the Unit Staff in carrying out its function in such areas as public relations, journalism, art, and so on.

Relationship with Public and Private Entities

—The HRDC/EDTAU has established a close working relationship with the City of Tuskegee Mayor's Office and the Economic Development Office to share relevant information on economic issues in Macon County.

—Working with organizations such as the South East Alabama Self-Help Association (SEASHA), and the Alabama Rural Council

(ARC), owner of the Tuskegee Capital Corporation formed under the MESBEC guidelines of the Economic Development Administration, the HRDC/EDTAU has firmly implanted itself within the economic development process of Macon County.

—The Unit director announced its location at Tuskegee Institute to all newspapers being circulated in the target area. Through the public relations department at Tuskegee Institute, the HRDC/EDTAU communicated its purposes, objectives, and services available to targeted clientele.

—In addition, the Unit Staff has cosponsored workshops with development organizations, and met on several occasions with city leaders to discuss and plan stratgegies to address the needs of current businesses. Methods to encourage new ventures and provide one-on-one comprehensive service to minority business clients were also addressed. The Unit has been involved in an active public relations activity to acquaint the counties with the program and provide the needed technical assistance to entrepreneurs, in the areas with no program of assistance similar to EDA.

The HRDC/EDTAU has established relationships with programs within the target counties throughout the state and region of EDA. The Unit Staff has attempted to bring EDA centers together to address trends that are similar and unique to the various centers. This activity is still a projected activity for the Unit Staff. In addition, the Unit Staff is planning with local organizations to provide a symposium to invite businesses throughout the service area to come together and discuss business initiatives and development strategies.

Case Studies:

Case #111 — Rural Garbage Pick-up — New Venture

Problem: The Rural Development Center of Bullock County was awarded a contract by the Bullock County Commission to collect rural garbage; this service needed assistance in establishing a bookkeeping system and requested general accounting information for starting a small business.

Action: The HRDC/EDTAU staff compiled an Operating Procedure for Implementing a Bookkeeping and Accounting System for the rural garbage service. With publications solicited from the Small Business Administration (SBA), the garbage service was provided several management aids and small business bibliography and publications.

The rural garbage service has now been in operation for approximately five months and employs two people with future plans to employ at least two additional individuals.

Case #112 — Public and Private Entity Relationship with the Business Community — Stabilization

Problem: The HRDC/EDTAU met with a local businessman who identified a problem that existed between the business community due to a breakdown in communication relative to items purchased and contracts up for bid.

Action: The HRDC/EDTAU notified the proper personnel to help alleviate this immediate problem. In the planning stage, the Unit staff anticipated sponsoring a conference to address issues of interest to the city and local entrepreneurs, simultaneously, allowing the purchasers to have direct input from the local entrepreneurs to formulate their own communication system.

Case #113 — Multi-Faceted Livestock Facility — New Venture

Problem: Development of plans for a residential commercial agribusiness, industrial development center in Macon County, Alabama.

Action: In conjunction with the Soil Conservationist located in the Human Resources Development Center, alternative plans were formulated. The alternative plans included the location and proximity of recommended structures.

Case #114 — Beauty Salon — New Venture

Problem: An owner of a beauty salon in Montgomery County contacted the HRDC/EDTAU for assistance in preparing a loan package. This loan package would be based on the operations of the present salon; however, the purpose of the package is to begin a new beauty salon with an increase in the operating capacity.

Action: The HRDC/EDTAU staff, with a consultant, met with the client, discussed the type of assistance needed, collected the necessary information, and began the creation of the loan package.

Although still in progress, upon completion the loan package will serve as the instrument to secure a loan in excess of $125,000 dollars to begin and operate a second salon.

Case #115 — Peanut Butter Production Plant — New Venture

Problem: The Executive Director of a small corporation located in Macon County solicited the assistance of the HRDC/EDTAU staff to update the financial section of a two-year-old feasibility study. The feasibility study outlined the total operations of a peanut butter production plant that the corporation plans to locate in Macon County, Alabama.

Action: The staff with the help of a Tuskegee Institute faculty member coordinated the updating of the feasibility study. If found feasible, the peanut butter production plant will begin operations within the next year.

Case #116 — Slaughter House — Loan Package

Problem: A local farmer contacted the HRDC/EDTAU director to explore the possibilities for opening a slaughter house in the local area, to serve local farmers and grocery markets.

Action: The Unit Staff made contacts and site visits to slaughter houses to gather information relative to restrictions and operational

matters of such a facility. The Unit Staff developed a feasibility study and assisted in preparing a loan package to start construction of the facility and purchase the necessary equipment.

Case #117 — Travel Service — Stabilization

Problem: The Institute was interested in providing travel service to serve the campus and community. Presently there is a department that serves the campus but provides only ticketing service. Based on the abundance of traveling done by campus personnel, methods were explored to provide more travel services such as visas, hotel arrangements, car rentals, and so on.

Action: The Unit Staff worked closely with campus personnel in exploring the possibility of incorporating additional travel services to be provided by the Institute to serve the campus and community. The plan was evaluated by the administration. Strategies are being explored to implement the travel service.

Case #118 — Clothing Store — New Venture

Problem: An individual who had opened a small retail clothing store solicited assistance for methods to attract customers to the shop and a listing of clothing outlets.

Action: The Center staff assisted the individual in getting the shop advertised in the newspaper and on radio stations. In addition, the Unit staff assisted the individual in developing a mailing campaign to advertise the shop and apparel. The Unit staff identified and developed a list of clothing outlets in the region. The store owner is receiving much support from the area buyers.

Case #119 — Non-Profit Organization — New Venture

Problem: The President of a newly founded nonprofit organization asked the Unit Director for assistance with developing a record-keeping system. The President found the present system inadequate and was unable to keep account of past and future credits and obligations.

Action: The Unit staff worked closely with the Institute's CPA and campus professor to design a system for the organization. The assistance was followed up monthly to evaluate the results. The organization's secretary is currently using the accounting system and is able to keep an adequate system on financial matters.

Case #120 — Clothing Factory — Business Expansion

Problem: A relatively small clothing factory contacted the Unit requesting assistance in acquiring a loan for expansion. The owner is interested in expanding the business and hiring additional workers to respond to the increasing work load.

Action: The Unit staff worked with the owner to secure the necessary information to develop a loan package to submit to lending institutions. If the loan is obtained, the factory could receive $50,000 and hire two additional workers.

Case #121 — Hardware Store — Business Expansion

Problem: An owner of a small hardware store contacted the Unit Director relative to acquiring working capital to increase the business inventory and expand.

Action: The Unit staff assisted the owner in developing a loan package to submit to the local bank. If the loan is secured it will result in the owner increasing inventory, adding on to the current building and hiring one employee.

Case #122 -- Household Cleanser Manufacturer - Business Stabilization

Problem: A small manufacturing company manager contacted the Unit Director for assistance for marketing a cleaning fluid. The manager also requested assistance in training sales personnel for the company.

Action: The Unit staff counseled the manager on methods to best market the product and sales strategies. Also, the Unit staff developed a comprehensive training package on good salesmanship. The information provided resulted in a sales increase and the training program was used after hiring one person.

Case #123 — Retail Variety Store — Stabilization

Problem: The owner of a variety store requested assistance from the Unit Director relative to severe financial problems. The owner was low on inventory and needed working capital to help sustain the business.

Action: The Unit staff did an assessment of the business to determine the extent of the problem. After counseling the manager on the results of the assessment, the Unit staff assisted the manager in reorganizing the management procedures incorporating a more cost efficient method of operating.

Case #124 — Restaurant — Stabilization and Expansion

Problem: A manager of a small restaurant contacted the Unit Director relative to its cash flow problem. The manager wanted to expand and borrow money.

Action: The Unit staff made an assessment of the problem and developed an efficient accounting method for the business and assisted in preparing a loan package. If the loan for $20,000 is secured, it would enable the manager to enlarge the operation and hire one individual.

Case #125 — Retail Shoe Store — Stabilization

Problem: An owner of a local retail Shoe Store was losing customers and facing cash-flow problems.

Action: The Unit staff counseled the owner in product line modification and sales strategies, and assisted with an accounting system. The owner has implemented the system provided by the Unit staff. The owner is experiencing an increase in sales and customers.

Case #126 — Beauty Shop — Stabilization

Problem: The owner of a beauty shop contacted the Unit staff to gain assistance in doing a cost analysis. The owner felt expenditures were too high in supplies, or the rent should be increased. She has four beauticians

renting from her in a beauty shop. The owner provides the space and necessary supplies to the beauticians.

Action: The Unit staff did a cost analysis for the shop and made several recommendations to the owner, such as the beauticians purchasing their supplies for hair treatments, the owner supplying towels and so on.

Case #127 — Night Club — Stabilization

Problem: The manager of a night club contacted the Unit Director to request assistance. He was experiencing severe problems with the bookkeeping system. He was not able to keep account of cash-flow and was experiencing management problems.

Action: The Unit staff met with the manager and counseled him on strategies to enhance manager-employee relations and provided information on managing a night club. In addition, the Unit staff developed an accounting system which the manager implemented.

Case #128 — Grocery Store — Stabilization

Problem: A client who has been operating a grocery store experienced a decline in sales and was unable to compete with neighboring grocery stores. This was a result of competitive grocery stores in the area. The client was not prepared for the drop in sales and was experiencing difficulty in paying his suppliers. The client requested that the Unit staff assist him in preparing a loan package to gain working capital.

Action: The Unit staff counseled the individual on methods to increase his sales and assisted in completing a loan package in the amount of $15,000 to pay creditors and increase inventory.

Case #129 — Hardware Store — Turnover and Stabilization

Problem: A owner of a hardware store was interested in selling out. The customers have decreased and business volume has declined. The individual interested in purchasing the store wants a feasibility study done before buying.

Action: A Feasibility study was done for the owner and potential buyer. We anticipate the purchase of the hardware store to be made in the near future to save six jobs.

Case #130 — Convenience Store — Stabilization

Problem: A convenience store started with only one employee. However the store has grown and has a gas station added to the business. The owner wants to hire more employees to operate the store and increase efficiency. The manager needed assistance in assessing how to best utilize the new employees and explore methods of accountability.

Action: The Unit staff assisted the manager in defining the responsibilities of the two people he wanted to hire. The Unit staff counseled the manager on characteristics and experiences needed for the job and assisted in developing management procedures for the employees.

Case #131 — Wholesale Foods — Stabilization

Problem: The manager of a wholesale foods warehouse requested

the assistance of the Unit staff in providing a market study and to assess current operations for possible expansion.

Action: The market study was conducted and the results discussed with the manager. However, he decided not to expand his business at this time.

Case #132 — Automotive Repair Shop — Stabilization and Management

Problem: The owner of an automotive shop requested the assistance of the Unit staff in developing a record keeping system and a job description for hiring an individual to maintain the records.

Action: The Unit staff developed a simple accounting System and trained the manager in utilizing the system. One individual was hired and the Unit provided training and follow-up assistance until the new employee was able to use the accounting system.

Case #133 — Gift Shop — Stabilization

Problem: A Gift Shop owner contacted the Unit Director for assistance in securing a financial package to increase inventory.

Action: The Unit staff assisted the owner in preparing a loan package for the amount of $3,000 to add to current inventory.

Case #134 — Barber Shop — Stabilization and Turnover

Problem: An individual working in a Barber Shop with another individual requested the assistance of the Unit staff in submitting a financial package.

Action: The Unit staff assisted the Individual in locating a building and submitting a loan package for the amount of $6,000.

Case #135 — Shoe Repair — Stabilization and Management

Problem: An individual contacted the Unit director for information on federal, state and local tax requirements.

Action: The individual through several meetings relative to tax requirements as they pertain to his operation, was able to understand the requirements therefore submitting the appropriate forms and meeting required deadlines.

Case #136 — Printing Shop — Stabilization

Problem: The Manager of a printing shop contacted the Unit director to construct a feasibility study to determine if implementing a computer would be cost effective for his business.

Action: The Unit staff prepared a feasibility study and determined that implementing a small computer with the capacities to grow with the business would be cost effective to reduce the time spent on mailing monthly bills, inventory control and overall accounting functions.

Case #137 — Day Care Center — Stabilization

Problem: The owner of a day care center contacted the Unit director for assistance in advertising her newly-opened Center.

Action: The Unit staff counseled the owner on various methods of advertisement and assisted the owner in developing a brochure which contains information relative to the Center.

Case #138 — Wholesale Beauty Products — Stabilization

Problem: Manager of a wholesale Beauty Products Company contacted the Unit director to develop an advertisement plan and sales strategy. The company had noticed a decrease in sales.

Action: The Unit staff counseled the manager on various advertisements and sales strategies. A comprehensive plan was submitted to the client with suggestions relative to extending the area currently being served.

Case #139 — Service Station — Stabilization

Problem: An Entrepreneur requested the Unit director's assistance in developing a record keeping system.

Action: The Unit staff developed an accounting system and provided training. The Unit staff provided a follow-up services to evaluate the effectiveness of the system.

Case #140 — Restaurant — Stabilization

Problem: An entrepreneur contacted the center to prepare a study to assess the feasibility of relocating his restaurant.

Action: The Unit staff prepared the feasibility study and advised the entrepreneur of the results. The owner is preparing to relocate the restaurant in the city limits.

Case #141 — Variety Store — Stabilization

Problem: The manager of a local variety store contacted the Unit director on information relative to good salesmanship and management training.

Action: The Unit staff has agreed to develop an in-service training program centered on improving work attitudes and developing positive manager/employee relations.

The Human Resources Development Center staff is aware of the plight of minority businesses and the lack of opportunities for minority business in the rural south. The case studies cited above dramatize the observation that economic development in the rural south is beginning to take shape and form. During these case studies the HRDC/EDTAU staff pursued an innovative strategy that provided a wide range of services to clients in the Black Belt Counties of Alabama. Feasibilities studies and surveys were conducted to identify minority entrepreneurs. Through questionnaires the Unit staff was able to ascertain information relative to the clients' needs, problems and priorities. Marketing surveys developed by the Unit staff provided information to determine trade area sales, potential customers, competition and other factors necessary to assess the chances for business success. The Unit staff assessed the potential for business development in various counties and examined the types of minority businesses, their longevity and failure rate. It is obvious that the potential for business development is in the target counties, an area where many of the counties are defined as redevelopment areas.

The HRDC/EDTAU assisted clients in the preparation and submission of business packages. The Unit staff has gone further by attempting to establish rapport with financial institutions and other groups in support of minority business development. In response to requests for information on various business matters, an extensive library of periodicals, publications and other statistical data has been developed. The Unit staff has cataloged this information into the computer system for easy access. In addition, HRDC/EDTAU has incorporated an IBM Displaywriter to undergird the business assistance provided to its clientele and provide ongoing training in the area of technology transfer.

The HRDC/EDTAU staff has met with city officials and organizations to establish program linkages. Efforts were made to cosponsor activities that supported the programmatic thrust of the HRDC/EDTAU.

In addition, HRDC/EDTAU will organize and sponsor workshops and conferences to address future trends in the business environment. Other organizations will be invited to participate in these activities, in an effort to reach a wider array of businesses in the rural counties. The impact and need for such a program is evident. The Unit staff will continue to reach out to distant counties that lack programs of assistance for minority entrepreneurs. The Unit staff has developed a concentrated effort to encourage the growth of businesses throughout the rural communities. Finally, the Unit will serve a vital function which seeks to lessen the constraints of small businesses thereby uplifting and improving the economic status of minority businesses throughout the Black Belt Counties in Alabama.

Cooperative Extension Program
Mr. P. W. Brown, Administrator

The Cooperative Extension programs at Tuskegee Institute is under the administrative umbrella of the Human Resources Development Center. The HRDC/Extension program has a full-time outreach staff in select counties in Alabama. The HRDC/Extension is focused on education in that staff transfers technology from the research laboratory to the clientele in select black-belt counties. Information transferred is intended to ameliorate identified problem(s) faced by the clientele and Cooperative Extension Programs are designed to help fulfill local and state needs. The programs are flexible enough to accommodate local, state and national objectives.

More than 50 HRDC/Cooperative personnel form an information network that complements the state plan with a Black-Belt Alabama focus. The general goal of the HRDC/Extension is better agriculture, better homes, better communities—in the aggregate—a better Alabama.

The basic function of the HRDC/Cooperative Extension program is to disseminate and encourage the application of research-generated knowledge and leadership techniques to individuals, families and communities. In carrying out this function, the following program goals are sought:

—To enhance the ability of individuals and groups in making decisions for wise use and management of the State's natural renewable, and nonrenewable resources, while assuring a protected environment for an improved quality of life;

—To provide information to farmers and agribusinesses that will help strengthen agriculture through efficiencies in marketing, distribution, and production;

—To strengthen the capabilities of individuals, communities, state and local governments in order that they may deal more effectively with public issues and local needs;

—To assist in the development of understanding of national and international issues in the transfer of research/extension concept to developing countries; and

—To cooperate with other agencies and institutions of local, state and federal governments and the private sector in the development and conduct of educational and informational programs for the public.

The HRDC/Cooperative Extension serves primarily the eleven Black Belt Counties and Barbour County (See Figure 1). Programs are designed around the needs of citizens in the target counties including limited resource and part-time farmers. Programs are also centered around families with special needs not associated with farming.

The HRDC/Extension program is a part of two other extension programs: Auburn and Alabama A&M Universities. The HRDC/Extension programs include a core of educational activities based in four broad categories: agriculture and natural resources, home economics, 4-H and youth and community resource development. This report provides an overview of these four activities during the past year.

Agriculture And Natural Resources

Farm producers make up less than three percent of Alabama's population, yet state farmers provide an abundance of food for the residents of Alabama. For example, commercial vegetable production offers opportunities for farmers in the target area to complement total farm income. Demonstration projects have proven to be an effective teaching method for HRDC/Extension, and during 1983 six new projects were established to teach the clients sound production and management practices in vegetable production. As a result, participation in high volume crop production increased from 900 to 1,080 producers. Survey findings show that 530 farmers increased their income by twenty-five percent. It is significant to note that the increase in farm income is attributed to the establishment of direct marketing outlets in the target areas. Because of the high cost of food, increased cost-of-living, and transportation, over which the

farmer has little control, home gardens offer an alternative by which families can supplement family needs and income.

With resources received from the Tennessee Valley Authority (TVA), the HRDC/Cooperative Extension Program established 230 home garden projects with the target area. In conjunction with the high volume crop and home garden demonstrations, fourteen workshops were conducted during the year on such topics as insect and weed control, cultivation practices, harvesting, and marketing. The workshops attracted more than 500 home gardeners. Circular letters, farm and office visits, and phone calls reached another 1,000 home gardeners. As a result the home garden thrust, production increased by thirty-five percent and the target clientele was able to consume fresh vegetables over a longer period of time, resulting in improved nutritional levels and increased farm income.

There are approximately 2,711 swine producers in the twelve counties served by the HRDC/Cooperative Extension Program, and, of these producers, forty-seven percent benefit from the technology transfer efforts. The swine producers are learning improved production management skills as well as increasing their income from the swine enterprises. Heifer Project International (HPI) has furnished over $300,000 worth of breeding animals for on-campus instruction and the HRDC/Cooperative Extension Project. As a result, the HRDC/Extension has established over 140 livestock demonstration projects in Alabama.

There are approximately 1,755 feeder cattle producers in the counties served by the HRDC/Cooperative Extension Program, and, of these producers, forty-six percent benefit from the technology transfer thrust. Through demonstrations, farm visits, training meetings, workshops and mass media, calf crops increased by fifteen percent, and gross income increased by ten percent.

One of the recent livestock enterprises included in the HRDC/Extension technology transfer thrust is goat production. Since goat meat is the most consumed meat in the world, there is an educational need for information on goat management and production practices. Of approximately 386 goat producers, thirty-eight percent are receiving information from the HRDC/Extension program personnel. Goat production has increased by sixteen percent and the average income has increased by nineteen percent since this project started.

Production of timber on nonfederal and nonindustrial forest land is important in meeting the nation's demand for wood products. Small forest landowners are producing wood at slightly one-half the potential, approximately fifty-six cubic feet per year per producer. Through the HRDC/Extension efforts more than 250 forest landowners received information on establishing, maintaining, reforesting and marketing alternatives. With the recent funding under the Renewable Resources Extension Act, intense programs will be implemented in the coming years.

Home Economics

Rural residents are often placed at a disadvantage for health services due to location, education, economic conditions and inherent practices. The HRDC/Cooperative Extension Program provides educational information on health awareness, identification of environmental health hazards, proper preservation of foods and health livestock production, and developing positive attitudes toward approved preventative medicine. Approximately 2,000 homemakers received information on improved health practices and more than 700 participated in the wellness program conducted by the HRDC/Extension program.

Despite the abundance of food being produced, there are still families who are inadequately nourished. Many homemakers have expressed an interest in ways of assuring an adequate family food supply. During the year special interest meetings, workshops, home visits and demonstrations were conducted on improved skills in meal planning, food selection, preparation, preservation, purchasing, storage and sanitation. More than 1,500 homemakers were in attendance at sessions throughout the target area. A total of 4,177 quarts of vegetables and fruits was preserved, thus reducing the family food budget to allow monies to be spent to meet other needs. As a result of the interest generated, over 800 youths and adults have been involved in food and nutrition related activities. In addition, the HRDC/Extension staff provides educational information for the elderly at several feeding sites.

Rising costs of essential goods and services, unemployment and underemployment and changing needs of family members add to the complexity of problems faced by families in trying to clothe adequately individual members. The HRDC/Extension continues to fill the ever increasing need of families and individuals to make the best use of opportunities and resources available in all areas of clothing and textiles.

Classes were conducted for 969 homemakers in basic clothing construction, material, accessory and pattern selection, comparison of homesewn wardrobes with ready-made garments, alterations, recycling and clothing care maintenance. Method and result demonstrations as well as learner teach-backs have served to generate further interest. Participants completed 339 garments, resulting in savings of $1,449. An informal survey among participants revealed that sixty-two percent felt they were better able to make decisions relative to meeting clothing needs of family members.

4-H and Youth

Over the past ten years, the HRDC/Extension has endeavored to involve an increased number of limited resource youth in the 4-H Beef Steer Project. The effort has been that of primarily securing additional sources of funding from organizations and institutions not traditionally involved in sponsoring of 4-H Steer Projects. These sources have been developed through an intensive educational program geared to foster a greater appreciation of the benefit to youth who participate in the

project.

In 1982 and 1983 fifteen youth were involved in beef steer shows as a direct result of the HRDC/Extension staff's efforts. These youth earned in excess of $3,500 in prize monies plus sales. Many of the loans were secured interest-free, thus decreasing the cost of participation for the youth.

The majority of the rural, isolated areas served by the HRDC/Extension Program do not offer organized recreational programs. While this is true throughout the year, the out-of-school months provide a special challenge. Therefore, day camping programs have been established at sites least likely to have such activities. It has been our experience, over several years, that competing activities are rare, thus, the camping program has been an integral part of the HRDC/Extension activities. For example, 1500 youth benefited from the day camps experience. An average of 135 children were in attendance at 11 day camps offered over the 12-county target area.

Programs are multi-faceted in nature and designed to meet the interests of a diverse group of youth. Activities included leadership development, nutrition, first aid, crafts, health education, career exploration, driver's education, wildlife education appreciation, as well as a wide range of recreational pursuits. In addition to the HRDC/Extension staff, resource persons from various local groups provided volunteer assistance to the program implementation.

Because of the continued interest and attendance at day camp programs, future plans will address camps of longer duration, and an increase in sites and youth served.

Community Resource Development

The State of Alabama has twenty-two parks strategically located throughout the State. The HRDC/Extension's efforts enhanced more utilization of faciiities as a means of promoting vacationing near home to reduce inflation. The HRDC/Extension agents worked with local organizations, churches, social service agencies, rural community leaders, and CRD committees in the dissemination of information about the location and park activities at each site.

Information procured from state parks are placed on bulletin boards and publication racks for review by clientele. Leaflets are mailed to churches, especially rural, to promote awareness and involvement in park activities.

Within the HRDC/Cooperative Extension's program target counties, the availability of water for county residents has become increasingly important to the growth and development of rural communities. Hazardous waste dumps and increased housing developments have made water an important priority.

The HRDC/Cooperative Extension staff has worked to create an awareness among local community leaders, city government, county government, county CRD committees, religious groups, and community

residents for a continued safe supply of drinking water throughout the target area, with specific emphasis on rural communities.

Meetings are held with local public officials to express the need to expand existing water lines and/or to consider establishing water systems in rural areas that are not within the reach of an existing water system. Five county governments are considering making applications to FmHA for water systems. Two counties have established water authorities and have extended city water systems to rural residents. One system is providing water to 4,000 residents and the other is serving approximately 2,500 residents.

The extension of water lines and the establishment of one county-wide water system in the two counties have resulted in 6,500 families benefiting from the endeavor. Approximately four thousand families are yet to be served by the projects, which will continue with the procurement of Block Grants from FmHA loans. Six water authorities were formulated.

The HRDC/Cooperative Extension Program has continued the support of Tuskegee Institute's Outreach thrust to improve the quality of life for citizens, particularly those not reached by traditional education programs. By some standards of measurement, this function has been accomplished, yet there remains much work to be done.

While the HRDC/Outreach thrust has moved rapidly toward designing innovative activities, demands make it mandatory to improve, upgrade and redesign programs. The HRDC/Outreach efforts will continue to address the needs of our clientele whose needs are diverse, but whose appreciation for an improved quality of life is paramount.

The HRDC/Extension personnel and staff are fully cognizant of the challenge and will continue to deliver programs of quality in keeping with the Tuskegee Institute heritage of helping people realize an improved quality of life.

Tennessee Valley Authority (TVA)

Tennessee Valley Authority (TVA) entered into an agreement to conduct fertility projects on small farms in the HRDC/Target Outreach counties (11 Black Belt counties and Barbour County, Alabama). The thrust of the TVA project includes livestock, hay, high volume production, and home gardening. In addition to the funds being reimbursed to the HRDC/Extension program for the actual direct costs incurred for these demonstration projects, TVA provided several tons of sulfa-coated urea for demonstration purposes.

The HRDC/Cooperative Extension Program provided the technical assistance, as well as educational assistance needed to conduct the projects. The TVA projects serve as laboratories to teach sound management practices, to supplement the income of the demonstrators, and to provide year-round fresh vegetables to participants.

The Tuskegee Institute administration is pleased to have had the opportunity to conduct educational programs cooperatively with the Tennessee Valley Authority and looks forward to continuing and expand-

ing the relationship.

Home Gardening and High Volume Crops

Through the efforts of TVA and the HRDC/Cooperative Extension Program, 230 home gardens and 12 high volume projects were established throughout the target area. This year's projects were considerably improved over previous ones.

Many farm families are becoming more interested in producing food for home consumption, as well as supplementing their income. This is partly due to the present economic conditions of unemployment and underemployment. Several of the demonstrators indicated to the HRDC/County Extension agents that had it not been for this program they would not have had a home garden. On the other hand, after having had a successful home garden and realizing the benefits, they expressed plans to have a home garden in years to come.

During the home garden and high volume demonstrations, sound management and production practices were taught to the demonstrators themselves, and other clients in their communities. These practices ranged from soil testing, seedbed preparation, crop selection, weed and insect control, cultivation, watering, harvesting and marketing.

As a result of our efforts to expand the number of demonstrators, high volume and home gardening project participants increased by thirty-five percent. Farm and office visits, phone calls and circular letters reached approximately 1,500 additional home gardeners, making them aware of the benefits of vegetable production.

Forage Production

Forage production continues to be a major problem for most small, part-time and limited resource farmers. With the high cost of labor, equipment and weather conditions, it is becoming very difficult for these farmers to save hay for the winter months. Currently, the most economical way to store hay is the round bale, weighing approximately 1,200-1,500 pounds. this method reduces labor cost, but equipment cost rises.

The success of most livestock producers is centered around their ability to produce high-quality forages. There is a continuous need to teach new methods and techniques on forage production.

The forage production demonstration projects demonstrated sound management and production practices to a number of livestock producers in our target area. These practices included the importance of year-round grazing, the effect of sulfa-coated urea, proper grazing practices, harvesting hay, weed control, the proper use of soil test recommendations, soil preparation and disease and insect control.

Tremendous interest was generated among the forage producers after having toured the demonstration plots. As a result, newsletters, phone calls, home and office visits reached approximately 120 additional small forage producers in the HRDC/target area.

TABLE 1. HOME GARDEN DEMONSTRATIONS
(230 PARTICIPANTS) 1983

Vegetables	Amount Grown	Estimated Cash Value
Butter Beans	504 bushels	$ 7,500.
Cabbage	1,225 heads	967
Collards	4,140 bunches	4,140.
Cucumbers	696 bushels	3,480.
Field Corn	1,225 bushels	4,900.
Lima Beans	201 bushels	2,420.
Okra	1,060 bushels	12,720.
Peas	1,170 bushels	11,700
Peppers	150 bushels	118.
Sweet Corn	980 bushels	4,900.
Sweet Potatoes	345 bushels	2,415.
Squash	800 bushels	5,200.
Onions	129 bushels	903.
Irish Potatoes	75 bushels	506.
Watermelons	3,150 melons	4,725.
Tomatoes	556 bushels	4,448
Snap Beans	419 bushels	3,142.
Turnip Greens	3,896 bunches	3,896.
	Total Cash Value	$78,082.
	Value of Product Used at Home	40,250.
	Total Cash Expense	12,246.
	Net Sales	$25,585.

The major findings from the forage demonstrations were centered around factors that determined the ability to produce high-quality hay. These findings were: soil type, varicty of forage being used, weather conditions at planting and harvesting, amount and time fertilized, control of weeds and insects and disease.

The demonstration projects conducted through the joint efforts of the HRDC/Cooperative Extension Program and the Tennessee Valley Authority have proven to be an excellent teaching tool. As a result of the demonstrations, it can be assumed that the quality of their lives has been improved for the participants, and especially those not reached by traditional Extension programs.

While these projects only reach a small group of clients per year, they have proven to be effective because the reached groups are informing friends and neighbors of the success of these programs.

With the continued support from the Tennessee Valley Authority, the HRDC/Cooperative Extension Program will continue to assist clients in elevating their standards of living through the delivery of technical and educational information.

TABLE 2. HIGH VOLUME CROP DEMONSTRATION
(6 PARTICIPANTS), 1983

Vegetables	Amount Grown	Estimated Cash Value
Butter Beans	675 bushels	$ 8,100.
Collards	1,740 bunches	1,740
Cucumbers	35 bushels	210.
Field Corn	602 bushels	2,408.
Okra	455 bushels	5,460.
Peas	450 bushels	3,600.
Sweet Potatoes	420 bushels	2,520.
Squash	180 bushels	1,080.
Watermelons	2,150 melons	2,150.
Snap Beans	132 bushels	1,320.
Tomatoes	45 bushels	370.
Turnip Greens	1,950 bunches	1,950.
	Total Cash Value	$30,908.
	Estimated Home Use	1,650.
	Total Cash Expense	6,300.
	Net Sales	$22,958.

Home Farm Production
Mr. Algie Key, District Agent

Dairy Production/Producing Milk for Home Consumption

Dairy production today is a specialized industry with fewer but larger dairies than ever before. However, there are still a number of limited resource farmers with one to five dairy cows on their farms. The milk from these cows is used by the family for drinking, butter, cooking and cheese.

Due to the renewed interest in the family dairy cow, HRDC/Extension continued its educational program with the dairy cow owners to teach recommended practices in selection, feeding, breeding and for producers to increase their knowledge and skills in dairy husbandry.

With the support of Heifer Project International (HPI), 12 dairy demonstration projects were established throughout the tartet area. Tennessee Valley Authority (TVA), provided $4,000.00 to demonstrate sound pasture management and production practices with the 12 demonstrators. In addition, over 70 dairy farmers were reached through workshops, circular letters, tours, county office and home visits.

Based on dairy records and surveys, 75% of the dairy cow owners increased their milk production by 59% which was a savings of an average of $215 per year on dairy products. Improved pastures resulted in a 35% reduction in feed cost which allowed funds to improve facilities for the enterprise. Eighty-five percent of the dairy cow operators adopted recommended practices and approximately 50 increased skills and knowledge.

The HRDC/Extension will continue to provide educational information to the family milk cow producers in improving the quality of life.

Goat Production

In FY '82, there were approximately 386 small producers in the HRDC/twelve county target area. This number increased to 418 in FY '83. Goat production is fast becoming a growing enterprise for many low income families. Recent statistics have shown that goat production has increased by 50 percent over the last several years in Alabama. Research has revealed that the goat can constitute one of the major sources of protein in the meat form. Most of the producers are raising goats for home consumption with a moderate number being sold. There is little or no consumption of goat milk in the home. Sizes of goat herds range from two to six heads per farm. These producers are confronted with inferior breeding stock, inadequate feeding, lack of proper facilities, herd health and a lack of knowledge of general management practices.

Methdologies used to assist producers with their problems were group meetings, personal contacts, demonstrations, circular letters, publications and mass media.

During the fiscal year, HPI provided some 48 goats, 40 does and eight bucks to establish and conduct method and result demonstrations. These animals were valued at $3,600.

As a result of the goat program 85 percent, or 385 producers, improved housing facilities. Sales and goats for meat to other families increased by 33 percent. The mortality rate of kids decreased by 68 percent, due mainly to improved facilities and management practices.

Beef Cattle

Beef cattle production continues to be a major enterprise for small, part-time and limited resource farmers in the target area. The cow-calf operation, the production of feeder and stocker steers is a major program for these producers. There are approximately 2,511 small, part-time limited resource beef producers in the target counties. Herd sizes range from five head to 75 head. The past three years have not been profitable ones for these producers. In addition to unprofitable cattle prices, a declining consumer demand, and widened retail-to-producer price spread, producers are faced with production problems such as low calf crop percentages, the control of insect and diseases, inbreeding and poor marketing practices. The HRDC Extension continued to assist small the beef cattle producers to adopt recommended practices in selection, feeding and breeding, to improve percent of calf crop, weaning weights and

quality of animals, and for beef producers to increase their knowledge and skills to operate at a profitable level.

Heifer Project International (HPI) provided approximately 120 head of beef heifers and 7 purebred bulls, valued at $56,970 to conduct beef cattle demonstrations to show the importance of proper selection, feeding and breeding practices, and to increase knowledge and skills in farm management production.

Additional support from the Tennessee Valley Authority (TVA) was provided for pasture improvement by providing fertilizers, as well as funds to purchase lime and seeds to demonstrate sound management practices in pasture and forage production. These practices included soil tests, seedbed preparation, planting, harvesting and control of disease and insects. As a result of these program efforts, there were considerable improvements in the quality and quantity of calves produced. Calf crops increased by 20%; the average number of calves weaned increased by 15%, the average number of calves marketed increased by 35%, and approximately 25% of calves marketed were 100 pounds heavier.

There was an increase of 475 acres of winter grazing and 390 acres of forage production which reduced the feed costs by 35%, and increased funds to improve livestock facilities and equipment. Approximately 906 limited resource, small and part-time farmers were provided educational information through field trips, newsletters, demonstrations, groups meetings, office and farm visits.

Housing and Home Environment

Substandard, poorly equipped and energy deficient housing poses severe problems for many limited resource and disadvantaged families. The cost of basic housing and home equipment needs is beyond the reach of many families who find that even with good budgeting techniques there is not enough money for needed housing repair and equipment replacement.

Due to the high unemployment rate in Alabama, high interest rate, and the need for housing, many families in the target area are purchasing mobile homes. There is an average of 9.3 percent mobile home units in the 12 counties. Housing lacking complete plumbing facilities in the target area averages slightly more than 12 percent. The percent of housing using wood as a source of energy increased by four percent.

Selection, use and maintenance of equipment in and around the home are important factors in energy consumption and conservation. During the year, focus was targeted on families and homemakers utilizing innovative and cost effective methods to improve the home and physical environment. Homemakers need knowledge of energy conservation and improved home furnishing practices for efficient living.

Other agencies cooperating with the HRDC/Extension Program were Alabama Power Company, local gas companies, community action agencies, local housing authorities, local appliance and hardware stores, and senior citizen centers.

As determined by reports and records, the housing and home environment program impacted upon clientele in that thirty-eight percent, or 570 of the 1500 families worked with, saved an average of $25 per month on utility bills. Through quick quilting teach-ins, 123 clients constructed a total of 615 quilts valued at $28,000. Draperies and curtains constructed by 210 homemakers total 480, at a value of $9,600. Christmas crafts were made by approximately 35 percent of the homemakers at a value of $4,500. These items included cloth dinner napkins, yarn tree ornaments, table center pieces, napkins rings, and picture frames. Twenty-two homemakers installed storm windows and doors. Fourteen homemakers planted shrubbery to improve home surroundings.

Future activities of this program will focus on energy conservation maintenance, improved environment, decision making and estate taxes.

Community Resource Development
Dr. Willie H. Thomas, Specialist

Recreation and Tourism

The economic situation has not changed significantly over the past year. Although inflation is declining, unemployment is still a continuous problem that is a menace to the social and economic existence of many minority groups. Unemployment has had a devastating effect on low income families. To make life more meaningful for those trying to live through economic crisis, efforts were made to (1) promote greater utilization of local/state parks, tourism sites affordable to low/middle income families, (2) disseminate information on recreation and tourism opportunities with the HRDC/Extension target area.

During the year, information was retrieved from the State of Alabama's Recreation and Tourism Department. This agency was very cooperative in providing information and materials on the state's recreation and tourism sites. Continuous contact was made during the year for specific information on the eight state parks within and contiguous to our target area. Local agencies and community leaders volunteered during the summer to work with and participate in organized day camps conducted for out-of-school youths.

Information retrieved from the state's park service on recreation and tourism was disseminated on those parks in and contiguous to the twelve-county area of utilization by agents through circular letters, local meetings and monthly information package. The impact of this initiative was that the clientele was informed of recreational activities and tourism sites that were available for family gatherings within short distances of most communities. The youth benefited most from this effort, particularly during summer day camps conducted by agents. The benefits

derived from this effort were social and cultural exposure. Additionally, youth were engaged in health, safety, nutrition and recreational activities through local and staff participation. The impact of this effort was measured as a result of the participation of 1,200 youth attending camps during a three-month period.

It is anticipated that expansion of this effort will occur during the ensuing year. Expanded day camps will include planned activities for one or more days at specific state parks for youth. Some activities will be planned in conjunction with certain holidays to encourage more family involvement. The anticipated clientele yet to be served constitutes fifty percent of the population of each of the twelve counties. Research is needed to determine the level of awareness and reasons for residents not utilizing state parks more frequently.

Community Services and Facilities

The 1980 Census of population and housing, advanced housing, advanced reports, reveals that a majority of the residents in the target counties live in areas of the county other than the county seat. In some counties within the target area, sixty to seventy-five percent of the residents live in areas outside of the rim of many essential services that are customarily located in the city/town of the county seat.

For the past year it was proposed that efforts be made to (1) inform and assist local governments in securing information concerning the availability of community development Block Grants (CDBG) funds through the Office of State Planning and Federal Programs; (2) assist local communities in securing funding for local initiatives as community centers, transportation, recreation, water systems, solid waste, etc. for the HRDC clientele within twelve contiguous counties.

There were limited outside resources needed in the formulation, development and planning for this endeavor. However, much cooperation and collaboration were engaged in between the CRD specialist, staff members of the OSPFP and a local community development staff group. Volunteer time was provided by both groups in the planning and conducting of a two-day CDBG workshop for the local outreach personnel.

In an effort to establish relationships with all necessary agencies that would be beneficial toward success in this endeavor: (1) time was spent attending two workshops conducted by the OSPFP to become familiar and aware of regulations and procedures for submitting grants applications in accordance with deadlines. A workshop on understanding CDBG process was conducted for all outreach personnel to create awareness and leverage among governmental officials in the target area. Thirty-two municipalities with 4,000 people or less stand to benefit from $9,600,000, should each get at least one application funded for a single purpose initiative i.e., water, housing, sewage, etc. from OSPFP.

The expansion of this initiative which presently focuses on municipalities with 4,000 people or less, will include in ensuing years the twelve counties and cities within the target area with 4,000 and above in popula-

tion. Research needed in this initiative will be in the form of follow-ups to determine progress with applications and impact analyses after municipalities have been the recipients of funded Community Development Block Grants.

Natural Resource Development

Environment pollution legislation introduced by Congress six years ago was the result of consumers disgruntlement over deterioration of the nation's vital resources by business and industrial firms. Because of seemingly complete disregard for the environment, legislation was introduced to protect and create awareness at the federal, state and local levels of the critical status of the nation's air, water and lands relative to chemical, hazardous, and solid waste. The focus of the program effort was (1) to promote an awareness of the need to have a cleaner, more attractive and safe environment at the rural community level; (2) to institute clean-up campaigns, community beautification projects and recycling initiative as a means of environmental consciousness by residents.

The resources involved in accomplishing the objectives consist of getting community leaders, ministers, local officials, volunteers and youth i.e., scout groups, working cooperatively and collaboratively in local community initiatives. County officials provided trucks and personnel to pick up garbage at selected points within respective counties during community clean-up weeks.

During the year, agents were instrumental in instituting clean-up campaigns that targeted the entire county. Support from county officials made it possible to have selected solid waste pick-up points that fostered the removal of unsightly areas around the home and community. Youth groups were encouraged to pick up cans, bottles, and paper for recycling. This effort was done to raise revenue for scout's clubs, however, more importantly, to develop a sense of community pride and awareness. Benefits derived from this effort were (1) cleaner home surroundings, (2) cleaner roads and ditches, (3) generated revenue for youth groups, and (4) a greater awareness of community pride by residents. The impact of this effort was measured by (1) agencies involvement, (2) communities participation, and (3) promotion provided by groups to overall awareness of communities concerns.

It is anticipated that the awareness and clean-up campaigns have generated enough enthusiasm within existing communities for the effort to continue and expand to communities not initially involved. This effort will not be the primary focus of activities for 1984-87, however, unplanned time will be devoted to community initiated and annual clean-up campaign efforts. Research is needed to determine if small towns of 4,00 residents have adequate capacity and capability to dispose of solid and sewage waste without endangering the surrounding environment.

Public Health
Dr. Edward T. Braye

Health Education

Health education has been incorporated as a component of the HRDC/Extension Program. Emphasis has largely centered on reaching clientele in small family and homemaker groups. During the past year, a major thrust was made to acquaint the clientele with the leading causes of death in Alabama and discuss the ways of reducing mortality. Also, the program continued to utilize the approach of "wellness" in getting its message over. New community groups were established in six (6) counties and three (3) exercise classes were organized. Monitoring of weight and blood pressures became a part of these active groups. Attention to proper nutrition and salt reduction in diets were stressed by all agents.

Audiovisuals utilizing themes relating to environmental hazards—such as flies, mosquitoes, home safety, pesticides, sewage and zoonoses were frequently shown to audiences.

There are encouraging signs that the target clientele is responsive to health messages. Attendance has generally been good and relatively consistent. We can expect greater participation in health screening programs and efforts to improve the home environment.

There appears to be a positive relationship in developing health awareness among our clientele. The use of local program assistants has helped in increasing use of the HRDC Extension personnel.

Animal Health

During FY '83, program emphasis in animal health was directed at broadening clientele's institution and utilization of improved management procedures and techniques for more economical livestock production. Twenty-five hundred (2500) part-time and full-time limited resource producers were exposed to educational awareness programs in thirteen Alabama counties. In addition, linkages were formed with Alabama A&M University, Heifer Project International and the Federation of Southern Cooperatives to provide animal health training programs for their clientele. Heifer Project International continued its joint relationship with us in supplying additional livestock (beef and dairy cattle, swine and chickens) for the clientele.

A pilot program funded by the Food Inspection Service through ES was in operation to inform and alert clientele about residue avoidance in their livestock. Information and discussion about RAP (Residue Avoidance Program) were instituted into most producer meetings. The use of various county demonstration projects continued role models for our clientele. Selected farms were thus utilized as sites to hold and conduct tours, field days and execute health prevention/management proce-

dures. Most of the producers at these field days were encouraged to execute a number of health procedures. Results were gratifying in most instances. Clientele showed a greater degree of willingness and confidence in their participatory actions in FY '83. Despite the fall in market prices for livestock, most of our clientele continue to be optimistic about small scale production, especially as it relates to home consumption and local sales of livestock. We are generally witnessing a reduction in animal mortality and an improvement in overall animal quality on most farms.

Developing programs, particularly those with emphasis on parasite control, immunizations and proper protein feeding, constitute major future thrusts.

Information
Ms. Lena Anderson, Specialist

Health and Personal Development

Since 1972, HRDC/Cooperative Extension has endeavored to offer 4-H youth programs directed to those youth who were not participants in ongoing programs. Primarily, this has meant programs directed toward youths in community-based groups. It has also been a matter of working with isolated "pockets" of youth in rural areas. One of the more successful means of providing personal growth and development has been through the "hidden agenda" of day camping. Not only does day camping provide a full agenda of enhancing developmental skills and tasks, it also reaches a large group of youth simultaneously.

The comprehensive objective of 4-H programs is that of helping youth to acquire knowledge and skills which enable them to become self-directing, productive and contributing members of society. To carry out this encompassing objective, it was necessary to provide a wide array of activities in settings where little, if any, organized plans exist during out-of-school months. The concept of this program is further challenged by a conspicuous absence of readily available resources. Thus, diligence and persistence have been mainstays in bringing this effort to fruition. The payoff has been most rewarding.

The day camping program has to its credit the involvement of more than 1,500 youth, and an average of four adult volunteer leaders per camp over a six-weeks period. Ten separate camps were held within the target area. Each camp lasted a minimum of three days, some for a full week. One of the more pressing problems of mobilizing resources to address not only locations of camps, which involved transporting resources, but, the elimination of summer food programs. Bringing together resources to address this problem has increased community support and participation. In addition to the HRDC Extension personnel and other

agencies, local food vendors, as well as national ones like McDonald's, Church's Chicken and Burger King have provided help. Food valued at more than $6,000 was donated to this program. Since there are no earmarked funds for such programs, impacting upon community resources is the only means by which this program has succeeded.

Horticulture
Dr. James E. Brown, Specialist

Home Gardening

Home gardening has been a welcomed additional resource for a number of Alabamians, particularly for those in the HRDC/target area. Many farm families are becoming more interested in producing food for home consumption, as well as supplementing their income. This is largely due to our present economic conditions of unemployment and underemployment.

During FY '83, educational efforts were continued with home gardeners throughout the 12 counties in Central Alabama and the Poarch Band of Creeks in Escambia County, Alabama to teach sound management and production practices, increase home food supply and implement drip irrigation systems. Educational efforts ranged from soil testing, seedbed preparation, crop selection, weed and insect control, cultivation, irrigation, harvesting and marketing.

Through a cooperative effort of Tennessee Valley Authority (TVA) and HRDC/Extension 230 home garden demonstrations and one 25 acre U-Pick-Em garden were established. TVA provided $10,000.00 to purchase plants, seeds, fertilizers, herbicides and insecticides to carry out these demonstrations. Through the use of demonstrations, group meetings, tours, circular letters, mass media, office and farm visits, more than 3,500 clients were provided educational information on home gardens.

As determined by garden records, surveys and observations, in spite of inclement weather conditions, sixty-five percent of the gardeners realized an increase of real income of an average of $450. Ninety percent adopted recommended practices and approximately 1,800 gardeners increased skills and knowledge, 38 percent increased yields and 5 percent implemented irrigation systems. In addition to increasing income, approximately $205 per garden was used for home use, which resulted in a savings on the grocery bill.

There still remain many home gardeners yet to be served. During the next four years, the HRDC/Extension will continue to focus on increasing participation as well as increasing income.

Crop Production—Commercial Vegetables/High Volume Crops

Despite the adverse weather conditions in FY '83 and limited marketing networks, limited resource, small and part-time farmers continued to make concerted efforts to produce commercial vegetables. Commercial vegetable/high volume crops production have been proven to contribute significantly to the family budget. For the most part, these commercial vegetable enterprises range in size from one to five acres.

As the trend for consumption of fresh vegetables continues to increase and marketing networks are developed, these producers will need to increase production to meet the supply and demand.

Based on the various commodity reports, commercial vegetable producers are confronted with various cultural practices and problems, such as improper soil fertility, disease and weed control, pest management control and other management practices, all of which have adversely affected production.

To help producers solve their problems, various extension methods were utilized. An additional six demonstrations were implemented to teach producers cultural practices. Other methods were field days, farm tours, workshops, personal contacts, and mass media, reaching a total of some 1200 producers, an increase of 120 or 11 percent. The HRDC/Extension working jointly with TVA resources of $35,000.00 was able to provide some incentive for producers to make greater efforts in increasing production levels and management skills.

Marketing surveys and producers records indicate that 624, or 42 percent, of the producers increased their income from $1,000 to $1,500 in FY '83. Two direct marketing networks were established in the twelve county target area.

Yields in production were up about 10 percent compared to last year. 980 producers recognized the need for implementing recommended management practices.

Recognizing the need to improve farm income, greater efforts will be focused on marketing networks, selling skills, improved crop yields and management practices.

Food and Nutrition
Mrs. Elenora Hines, Specialist

Clothing Construction

The average annual spending for clothing has been estimated at nearly $500 per person. While this amount reflects a national average, Extension Program clientele can generally not afford this kind of cash outlay when other factors of unemployment and inflation compound their

already limited resources. Home clothing construction is one means of providing for family clothing needs and is a major program thrust. Many limited resource homemakers own sewing machines, but lack proper skills for getting best use from them. In addition to the lack of basic construction skills, there are problems associated with pattern and fabric selection, as well as fitting techniques. Thus, a greater emphasis has been placed on understanding machine operation and building skills which lead to abilities to construct garments for family needs, and as a means of supplementing income.

Slightly more than 5,000 contacts were made for the purpose of acquiring sewing skills, ranging from basic construction to recycling of garments. An average of 50 homemakers were enrolled in sewing classes over the 12-county target area. An additional 5,000 contacts were made via newsletters and circular letters. An estimated 100 homemakers acquired sufficient skills to supplement their family income. Based on an average savings of $12.00 per garment, homemakers saved more than $360.00 through direct result of home sewed garments. More than half of the group recycled garments which extended the family clothing dollar even further. A modest figure of $5.00 per recycled garment saved an additional $250. Incomes were increased by an average of $300 for 25 homemakers in the target area, resulting in an added $7,500 for family use.

Resources of each community were involved in at least one phase of the construction content. Tours were conducted by fabric store personnel, and in four of 12 counties, vocational home economics departments were consulted. The activities enhanced educational efforts of agents, as well as provided an additional source of information. An unanticipated spinoff of these educational efforts has been the assistance to others who did not formally enroll in the sewing classes. Many of those enrolled were so pleased with their own accomplishments that they encouraged others to begin home sewing and decorating projects.

Foods and Nutrition

Education in foods and nutrition continues to be an important aspect of HRDC Cooperative Extension Program offerings to the population in its target area and other areas that evidence interest and need. Through Extension Program efforts in responding to the needs of clients throughout the Black Belt of Alabama, the following were some of the readily measurable contributions to clients through various food and nutrition related activities.

Over 5,000 individuals and families were reached through workshops, training sessions, home visitation and special interest meetings involving activities such as nutrition throughout the life cycle, food budgeting, meal planning, preparation, sanitation, safety and wise use of homegrown foods, special diets, food and health, food and nutrition resources and income generation. One thousand, three hundred thirty-eight youngsters were exposed to nutrition and healthy growth informa-

tion through summer camp and related activities.

Six counties alone recorded 16,489 quarts of fruits and vegetables canned for home use with one of the counties listing 115 pounds of chicken and fish being preserved. Since most of the foods were homegrown, this represents a tremendous saving as compared to store prices.

The importance of good nutrition to health as well as the fact that nutrition status does not exist in insolation, but is part and parcel of the total life experience, was an integral part of the total program.

Quarterly staff meetings, county visits, mail and telephone contacts with county staff provided greater opportunities for planning, coordinating and delivering a wide range of home economics and related services to the target area.

The growing awareness of the impact of adequate food and good nutrition on life quality and productivity promises increased program participation in the coming year.

Food Preservation

With the increased number of home gardens, availability of fresh vegetables, and the high cost of food prices, food preservation is on the increase among limited resource and low income homemakers throughout the target counties. The most prevalent methods used in preserving food among limited resource families are freezing and canning. However, in many cases, these methods of preserving food are not done properly. Therefore, there is a continuous need to educate many of the limited resource families to adopt new and improved methods of preserving foods to maintain nutritional content, quality and appearance. There is also a lack of knowledge about the safety of preserved foods, which can lead to toxic foods.

Food preservation programs were conducted to teach approved techniques of preserving foods. This provided opportunities for the utilization of fresh vegetables to be used over a longer span of time, and also the use of family funds for other family needs.

In conjunction with the home garden demonstration projects, 105 homemakers conducted method demonstrations to teach proper food preservation techniques to other homemakers in the target area. More than 3,600 other homemakers were reached through special interest meetings, workshops, phone calls, circular letters, office and home visits.

A survey was conducted with 210 homemakers and revealed they preserved on an average of 50 quarts of peas each, 10 pints of jellies, 32 quarts of tomatoes, 35 quarts of turnips and collards, 30 quarts of butterbeans, 27 quarts of okra, 12 quarts of corn, 25 quarts of relishes, 23 quarts of snap beans and 18 quarts of squash, making a total of 55,020 quarts of fresh fruits and vegetables available for use throughout the year, and further impacting upon the nutritional status of these families. The overall economic impact for the group exceeds more than $75,000 in foodstuffs value.

Soil Conservation
Mr. Clifford E. Jones, Specialist

I am pleased to have this opportunity to be assigned to the HRDC/Outreach Staff by the USDA Soil Conservation Service. During this year, I will be working with the Director of the Human Resources Development Center (HRDC) to plan and implement the Professional Agricultural Workers Conference (PAWC) Program. In addition to planning the PAWC, I will assist the Institute in identifying program possibilities through USDA, SCS, and other federal agencies. My stay at Tuskegee Institute will provide SCS with a better understanding of rural problems affecting low-income landowners. This will be accompanied by coordinating in-service training for outreach employees at the Institute, conducting a series of workshops with clientele on rural problems affecting low-income landowners, and conducting seminars for low-income farmers on how to get the most benefits from SCS and other USDA agencies.

The PAWC has been at Tuskegee Institute since its inception in 1943. It is held in December of each year. This annual conference brings together professional agriculturists from the 1890 and 1862 Land-Grant Universities, various USDA agencies, USAID and other organizations whose major responsibility is to work with farmers and rural people in the South. The PAWC seeks to address issues deemed important to the improvement in the quality of life in the states where the 1890 Land-Grant Universities are located.

During the 1980 conference it was recommended that a series of mini-conferences be held in states where the 1890 Land-Grant Universities are located. In response to that request, the USDA-Soil Conservation Service located a full-time individual at Tuskegee Institute to assist with the successful realization of the mini-conference concept and other activities. As the resource person (RP), it is my responsibility to assist in the planning and implementation of the mini-conference in each state. This position is under the direct supervision of the Director of HRDC.

In 1981 the President of Tuskegee Institute requested that each President of the 1890 Land-Grant Universities designate a liaison person at his school to coordinate and provide the leadership needed to implement the mini-conference in his state. This request has been fulfilled by each University President.

Purpose

The purpose of the mini-conference is to provide a forum for professional agricultural workers, lay workers, and others, to identify and articulate constraints that affect rural people residing within each state. In addition, the conference will enable each state to have input into the design and implementation of the Annual PAWC at Tuskegee Institute. The agenda will be so structured as to focus on program strategies rather than discussion of a wide array of issues without solutions.

Criteria For Selection Of Participants

Participants should be persons who assist rural residents in improving their quality of life. This includes workers from Federal, State and local agencies, colleges and universities, as well as from private groups and organizations.

Some examples of USDA Agencies are Farmers Home Administration, Soil Conservation Service, Cooperative Extension Service, Agricultural Stabilization and Conservation Service. Still other participants are: university faculty and staff, agribusiness teachers, rural planning and development organizations and health and human services organizations.

It is suggested that each agency or organization be represented by two or more participants. In addition, it would be helpful for "field level" and administrative or management level workers to be invited to participate. This will provide an opportunity for input from the agency or organization at all levels.

It is assumed that employers will permit employees to attend and participate in the conferences on official work time.

Conference Date And Time

The conferences will be a one-day event, which will permit participants to attend without staying overnight. The conferences will begin at 9:00 a.m. and adjourn by 5:00 p.m. They will be held on a Tuesday, Wednesday, or Thursday.

In order to utilize and incorporate adequately the results of the mini-conferences into the PAWC agenda, it will be necessary that the conferences be held between March and July.

Conference Location

The conference will be held on the campus of the 1890 Land-Grant University in the state.

Conference Agenda — Planning And Coordinating

The designated liaison person at the Land-Grant University will serve as program chairman and provide leadership for developing the conference agenda. This will be done with the assistance and input of the resource person from HRDC at Tuskegee Institute and a conference planning committee from the state. We recommend that the committee consist of one person from each of the various agencies or organizations to be represented.

Meals

Individual participants will be responsible for paying for their meals. It is assumed that the employer of each participant will provide per diem to cover such costs.

Conference Summary Of Issues And Recommendations

The conference will be summarized which will identify issues that need to be addressed. These issues will be utilized to develop the agenda for the annual PAWC.

The Tuskegee Institute/Human Resources Development Outreach Staff

Name/Position	Area of Concentration	Degree
Lena Anderson Information Specialist	Extension Education Vocational Education	Ed.S.
Walter Baldwin Associate County Agent	Agricultural Education	M.Ed.
Anna P. Baskin Assistant County Agent	Home Economics Education	B.S.
Rachael Bonner Associate County Agent	Home Economics Education	M.Ed.
Edwart T. Braye Extension Veterinarian/ Public Health Specialist	Veterinary Medicine	D.V.M.
James E. Brown Horticultural Specialist	Horticulture	Ph.D.
Philip Brown Administrator	Supervision and Administration	Ed.S.
Mary Cade Head, Management and Operations	Business Management	B.S.
Alphonso Elliott Assistant County Agent	Animal Science	M.S.
Bobby England Assistant County Agent	Agribusiness	B.S.
Elenora Hines Food and Nutrition Specialist	Home Economics Education	M.Ed.
Ester Jackson Associate County Agent	Home Economics Education	B.S.
Algie Key District Agent	Agricultural Education	M.Ed.
Donald Lawson Director Economic Development Technical Assistance Unit (EDTAU)	Accounting	B.S.
Dorothy Riggins Materials Specialist	Extension Education Vocational Education	Ed.S.
Ernest Riggins Associate County Agent	Extension Education	Ed.S.

Lucious Rodgers Associate County Agent	Agricultural Education	M.Ed.
Debra Tazewell Assistant Director Economic Development Technical Assistance Unit (EDTAU)	Business	M.S.
Willie Thomas Community Resource Development Specialist	Adult Education	Ph.D.
Nobie Williams Assistant County Agent	Clothing	B.S.
Thomas T. Williams Director Human Resources Development Center (HRDC)	Economics	Ph.D.
Bernice Wilson Associate County Agent	Extension Education Vocational Education	Ed.S.
Wilma Womack Associate County AGent	Human Development and Family Life	M.S.
Median Vidrine Soil Conservation Specialist	Agricultural Education	B.S.
Paul Young Associate County Agent	Extension Education	M.Ed.

THE GEORGE WASHINGTON CARVER PUBLIC SERVICE AWARD

Overview:

This award will become a part of the Annual PAWC program at Tuskegee Institute. The award is given in recognition of individuals whose work mirrors the philosophy of George Washington Carver that is reflected in this quote:

> "... it has always been the one great ideal ... to be the greatest good to the greatest number of people."
>
> George Washington Carver, 1890

For purposes of this award, public service is viewed as significant accomplishments and contributions in the areas of extension and outreach activities designed to improve the quality of life for the rural clientele served by the 1890 Land-Grant Universities and Tuskegee Institute.

Award Criteria:

The criteria for selection of the award are as follows:

- —Demonstrated public service that has advanced the quality of life for the rural population clientele served by the 1890 Land-Grant Universities and Tuskegee Institute.
- —Length of service in the profession (a period of at least five years).
- —Innovative contributions to public service in the form of meetings, publications and action-oriented research with focus on solution of problem(s) facing the outreach clientele.
- —Recognition of the nominee by his or her peer group, the university, and the grass roots clientele.

Limitation of Award:

The award will be limited to (a) individuals employed and/or located at the 1890 Land-Grant Universities and Tuskegee Institute; and (b) individuals employed with public and private organizations serving the 1890 Land-Grant Universities and Tuskegee Institute rural clientele.

Selection Process:

The selection process for the George Washington Carver Public Service Award will be as follows:

- —Open nominations for the Public Service Award will be announced by the Director of HRDC on or about January 15 of each year. The Campus Award committeeman will publicize the announcement of nominations in the local paper.
- —There will be established an Award Committee appointed by the Chief Administrative Officer of each institution. It is envisioned that this committee will have 17 members, or one from each 1890 Land-Grant University and Tuskegee Institute. (See Table 1 and 2).
- —The President (Chief Administration Officer) of the 1890 Land-Grant Universities and Tuskegee Institute will nominate individuals from that respective state, for Distinguished Contributions in Public Service. Accompanying the nomination will be a two-page (typewritten) statement incorporating the nominee's contributions and fitness for the award. The typewritten statement will elaborate on the Award criteria and the nominee receiving the highest rating will be declared the winner. Individuals who are not winners in one year may be nominated another year.
- —The Selection Committee will have the responsibility of reviewing the record of nominees and making the final selection. This committee will represent individuals from various groups and organizations.
- —The list of nominees will be compiled by the Director of HRDC and disseminated to each member of the Selection Committee by April 1 of each year.
- —By October 15 the Selection Committee will make its final decision relative to the awardees. The names of the Awardees selected by the Selection Committee will be communicated to the Chief Administrative Officer of each 1890 Land-Grant University and Tuskegee Institute.
- —By November 15 the Committee for the 1890 Land-Grant Universities and Tuskegee Institute will formally announce each awardee selected.
- —The Award Committee will be responsible for that portion of the PAWC program that includes the Awards presentations.
- —The Award Committee will be responsible for the design of the Award Plaque.

TABLE 1. Presidents/Chancellors of the 1890 Land-Grant Universities and Tuskegee Institute, 1983*

Institution	President/Chancellor
Lincoln University	Dr. Thomas Jenkins, President
Alcorn State University	Dr. Walter Washington, President
South Carolina State College	Dr. M. Maceo Nance, Jr., President
University of Arkansas, Pine Bluff	Dr. Lloyd Hackley, Chancellor
Alabama A & M University	Dr. R. D. Morrison, President
Prairie View A & M University	Dr. Percy A. Pierre, President
Southern University	Dr. Jesse Stone, Jr., President
Tuskegee Institute	Dr. Benjamin F. Payton, President
Virginia State College	Dr. Wilbert Greenfield, President
Kentucky State University	Dr. Raymond M. Burse, President
University of Maryland — Eastern Shores	Dr. William Hytche, Chancellor
Florida A & M University	Dr. Walter L. Smith, President
Delaware State College	Dr. Luna T. Mishoe, President
North Carolina A & T University	Dr. Edward B. Fort, Chancellor
Fort Valley State University	Dr. Luther Burse, President
Langston University	Dr. Ernest L. Holloway, President
Tennessee State University	Dr. Frederick S. Humphries, President

TABLE 2. Carver Award Committee Representatives from the 1890 Land-Grant Universities and Tuskegee Institute, 1983

Institution	Representative
Lincoln University	Dr. Edward (Ted) Wilson
Alcorn State University	Dr. Johnnie B. Collins
South Carolina State College	Dr. James H. Walker, Jr.
University of Arkansas, Pine Bluff	Dr. Sellers J. Parker
Alabama A & M University	Dr. James Shuford
Prairie View A & M University	Dr. T. R. Freeman
Southern University	Dr. Kirkland Mellad
Tuskegee Institute	Dr. T. T. Williams
Virginia State College	Dr. Maurice O. Godley
Kentucky State University	Dr. Lionel Williamson
University of Maryland — Eastern Shores	Dr. Mortimer Neufville
Florida A & M University	(Not appointed)
Delaware State College	Dr. Ulysses S. Washington
North Carolina A & T University	Dr. Sidney H. Evans
Fort Valley State University	Dr. Fred Harrison
Langston University	Dr. Gilbert Tampkins
Tennessee State University	Dr. Roland Norman

Organizations Supporting the HRDC Outreach Activities
and Publications
Tuskegee Institute
1984

A. Supporting Agencies

Fulbright Commission
Heifer Project International
U. S. Department of Agriculture
Agricultural Stabilization Conservation Service
Cooperative Extension Service
Farmers Home Administration
Forest Service
Task Force on Historically Black Colleges and Universities
Office of Rural Development Policy
Soil Conservation Service
Office of International Cooperation and Development
National Association of State Universities and Land Grant Colleges
United States Agency for International Development
Tennessee Valley Authority
Kellogg Foundation
Department of Labor
Mott Foundation
Department of Commerce
Control Data
Lutheran Church of America
W. T. Morris Foundation
Office of Juvenile Justice and Delinquency
Department of Justice
Gettysburg College

B. Publications

Tuskegee Institute
Human Resources Development Center

Proceedings of The 39th Annual Professional Agricultural Workers Conference (PAWC) "Emerging Rural Development Issues and Policies"

Proceedings of The 18th Annual Conference of the Association of U.S. University Directors Of International Programs

A Unit of Technical Assistance to Organizations and Industries of the Black Belt Counties

Human Resources Development Center Annual Report 1981

Cattle and Stress

Management Tips Cow/Calf

Reproduction of Beef Cattle Production

Internal Parasitism and the Livestock Farmer

Selection of Breeding Cattle

Small Scale Feeder - Pig Production

Producing Feeder Pigs

Reducing Loss of Baby Pigs

Raising A Small Flock of Goats for Meat and Milk

Selection, Breeding Practices and Feeding The Herd Goat

Raising A Small Flock of Goats for Meat and Milk

Management Practices, Housing and Facilities

Basic Stitches

Sewing on A Flat Button

How to Thread A Needle

Tying A Knot

Making A Hem Guage

Know Your Machine

To Prevent Tangles or Breaks

What Lines Can Do

Three Basic Zipper Applications

Shopping Tips for Clothing

Selection of Foods For Diabetic Meals

Low Sodium Baking Powder Biscuits

Low Sodium Quick Yeast Muffins

Fantastic Sweet Potato Salad

Low Sodium Bread

Low Sodium Mayonnaise with a Punch

Ade Punch

Low Sodium French Dressing

Low Sodium Homemade Buttermilk

Formula for Salt Free Baking Powder

Tuna Casserole

I am Vitamin C

Labels are Your Friend — Read Them

Shopping For Canned Goods

Meats and Meat Substitutes

How To Shop For Foods From The Basic Four

How To Give A Food Demonstration

Motivation of Disadvantaged Youth

Let's Start A 4-H Business

4-H Is Your Chance

Muscadine Grape Production

Rabbiteye Blueberry Production

Improving Man's Environment Through Animal Disease Control

Staff Development For Extension Workers

Cooperative Extension Service At Tuskegee Institute

Understanding Community Resources Development A Concept Model

Production of Vegetables of Drip Irrigation

Cooperating With Other Agencies For Improved Rural Living

Ushering in The 80's

Increasing Calf Crop % in Beef Herds

Beef Cow — Calf Management Guide — Calender

Basic Health for Small Beef Herds

Tuskegee Institute Cooperative Extension Program Macon County, Alabama

Barbour County Alabama

Practical Consideration for A Swine Enterprise

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Figure 1. Tuskegee Institute HRDC Target Counties, 1983

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Announcing the 42nd
PROFESSIONAL AGRICULTURAL WORKERS CONFERENCE (PAWC)
Tuskegee Institute, Alabama
December 2-4, 1984

We invite you to participate on the Program for the 42nd Annual Meeting, of the PAWC December 2-4, 1984.

CONFERENCE THEME: "STRATEGY FOR THE SURVIVAL OF SMALL FARMERS IN THE UNITED STATES"

PURPOSE OF THE PAWC

The PAWC, started in 1942, is a professional organization dedicated to improving and expanding knowledge for the development of human resources in rural America. The principal activities of PAWC are organizing the annual conference, publishing the Conference Proceedings, and sponsoring the George Washington Carver Public Service Award. Conference Proceedings are mailed to participants and other interested individuals.

CALL FOR CONTRIBUTORS PAPERS

STRATEGY FOR THE SURVIVAL OF SMALL FARMERS IN THE UNITED STATES is the 1984 Conference Theme. We solicit at least 3 papers on each of the three major topics listed below.

The Importance of the Farm Family as a Factor Influencing the Survival of the Small Farmer with Implications for Domestic and International Policies

—It is suggested that the author(s) will address such factors as: family size, health and nutrition, educational level of the farm operator, economic and social characteristics of the household, dissemination of information, and policy implications.

Farm Management as a Factor Influencing Farm Production and Its Impact on the Survival of Small Farmers; Implications for Domestic and International Policies

—It is hoped that the author(s) will address such factors as: farming methods, farm size, soil conservation techniques, planning procedures, biotechnology, technology transfer, and policy implications.

The Importance of the Method of Marketing Farm Output on the Survival of the Small Farmers with Implication for Domestic and International Policies

—It is suggested that the author(s) address such methods as: U-Pick, Wholesale/Retail, Cooperatives, transfer of improved marketing practices, and policy implications.

If you are interested in the preparation and delivery of a paper at the PAWC, we will need the following information by July 31, 1984:

—Letter expressing your intention to prepare and present a paper on one of the three topics listed above.
—Abstract of the paper (not more than 500 words).
—Copy of your latest vita.

Call for Participants to Serve as Workshop Facilitators

There will be three concurrent workshops: Farm Family; Farm Production, and Marketing Methods. The call goes out for three individuals to serve as facilitators (one for each workshop). If you are interested in serving as a facilitator, we will need the following information by July 31, 1984:

—Letter expressing your intention to serve as facilitator at a PAWC Workshop Session (be specific as to which session).
—Copy of your latest vita.

Call for Participants to Serve as Chairperson

The call goes out for eight chairpersons for the 1984 PAWC. If you are interested, we will need the following information by July 31, 1984:

—Letter expressing your intention to serve as chairperson.
—Copy of your latest vita.

The PAWC planning committee will honor the letter of expression up to the date requested — July 31, 1984. The postmarked mailing date will be used to determine the order of selection.

CALL FOR SUCCESS STORIES ON "STRATEGY FOR THE SURVIVAL OF SMALL FARMERS"

Last year (1983 PAWC) the suggestion was made to incorporate success stories in the 1984 program. In keeping with that idea, we request that each presenter select a Model Strategy used in his/her

respective state for the Survival of Small Farmers. We will set aside adequate time for the presentation of these success stories. If you are interested we will need the following information by July 31, 1984:

—Expression of interest to present a success story at the PAWC.
—Descriptive Title of Success Story.
—Latest vita for the person who will make the presentation.
—A typed abstract (double-spaced) of not more than 1,000 words depicting how this story has helped the small farmer.(You are encouraged to use slides or other visual aids during your presentation at the PAWC.)

ADDITIONAL INFORMATION RELATING TO THE PAWC

—Confirmation of individuals who expressed an interest in serving on program (contributed papers, facilitator, chairperson, or presenter of success story) will be mailed by August 31, 1984.
—Registration fee of $65.00 (same as last year) includes Banquet, Luncheon, Conference Materials, Printing and mailing Proceedings and other activities related to the Conference. Checks are to be made payable to: Tuskegee Institute HRDC/PAWC.
—To assure housing accommodations, make your reservations early (by October 15, 1984). Listed below are places where former PAWC participants have stayed:

Tuskegee Inn, Tuskegee, Alabama (about 5 miles west of campus).	(205) 727-5400
Holiday Inn (East), Montgomery, Alabama (about 40 miles south of campus)	(205) 272-0370
Auburn Conference Center, Auburn, Ala. (about 30 miles north of campus)	(205) 821-7001
Dorothy Hall, Tuskegee Institute Campus (Limited accommodations)	(205) 727-3400

For further information concerning the 1984 PAWC, please contact:

Dr. Thomas T. Williams, *Director*
Human Resources Development Center
P.O. Box 681
Tuskegee Institute, Alabama 36088
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